

THE MICHIGAN FARMER,

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Relating to the Farm, the Garden, and the Household.

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The Farm.

Caterpillars on Orchards.

The dry season which prevails, will give great vigor to all sorts of insects, and particularly to the caterpillars. Attention should be given to these pests of the orchard at the earliest moment when they can be perceived on the branches. Where they have lodged upon large trees, do not hesitate to take off the branch where the pest is seen in an incipient state, and be satisfied with nothing less than a purification by fire. Watching at the same time that not a single one escapes. The hand and glove does very well where a few of the "crawling things" are to be destroyed, but do not hesitate to take the branch, lop it off with a smooth sharp cut, and have a chip fire close by where it can be completely destroyed with all that is on it. This not only saves the tree, but also prevents the multiplication of the insect. Every one knows the caterpillar of the apple tree, but very few know the moth itself which is the insect in its perfect state, and which lays the eggs, that give birth to the larvæ that commits such depredations on the trees of our orchards. The insect is named the American Lackey Moth, its scientific name being *Clisio campa Americana*, and belongs to the same family as the silk worm. It is a small, dull colored moth, with a hairy body, and not at all like the brilliant variegated caterpillar. Dr. Fitch observes that these insects are always most plenty in those seasons which favor the production of a large crop of fruit. The eggs are placed in clusters near the ends of twigs, and range from three hundred to three hundred and fifty in a cluster. They are arranged side by side in regular order in rings, and are cemented together and to the branch with a kind of glutinous matter that protects them from the weather. The eggs are deposited by the moth in July, and remain on the branch till the following spring, when they are hatched out about the latter part of April and beginning of May. The young worms when first

hatched out feed for a few days on the glutinous matter that surrounds the eggs, when, having attained strength enough to travel, they proceed down the branch and begin to forage for themselves. Each worm as it moves down the branch spins from its mouth a small thread, which is attached to the bark.

"On coming to a fork," says Dr. Fitch, from whom we quote, "they halt, and there erect a kind of tent for their subsequent residence, by traveling around the spot, spinning their threads in every direction, thereby forming a web resembling that of a spider. This at first is quite slight, and wholly inadequate to shelter them. Hence if a rain comes on it penetrates the web everywhere, and the young worms may be seen crowded together in a mass, in its driest part, upon the under side of the limb. But thousands of additional threads being added to it each fair day, it rapidly becomes more substantial and better adapted for their protection.

"When they first come from the eggs these worms are less than the tenth of an inch long, and about the thickness of an ordinary sized pin, their bodies broadest at the head, and slightly tapering, of a black color with pale feet and slightly clothed with fine whitish hairs. At first they merely nibble a small spot upon the surface of a leaf, or perforate a small hole through it, or gnaw a slight notch in its side, for a meal, and as soon as they have fed thus much it can be seen that their bodies are more plump, and fine, whitish lines begin to appear upon them. As they increase in size, and especially each time they change their skins, their color becomes more diversified. They change their skins five or perhaps six times at intervals of from three to nine days, the worm gaining from an eighth to a quarter of an inch in length each time it throws off its old skin.

When young they go out to feed much less frequently than when they are larger. They move about entirely at hazard in search of food, having no power of smell or other sense to guide them, as I infer from having placed apple and cherry leaves in the direction in which famishing worms were traveling, and seeing them pass quite near and almost touching such leaves without discovering them. Nor when a store of food has been discovered by some of the worms of a starved nest, have they any mode of communicating the information to the others. The rest of the nest probably discover the fact that some of their comrades have obtained a full meal, and thus know that food is somewhere within their reach, but they are obliged to wander about at hap-hazard until they find it. And I have noticed one hungry worm and another after examining the end of every twig upon a limb unsuccessfully for food, on returning down the limb meet several others going out upon the same errand; yet they pass their comrades without those who are coming in having any mode of informing those who are going out that their journey will be wholly fruitless.

"As a general rule each nest has its stated hours for feeding and for repose, all the worms going out and returning in a regular procession, one after another. They repair to a particular limb of the tree, frequently a limb which is distant from the nest, and there feed together, occupying every leaf and three or four worms often eating upon one leaf. In pleasant weather they have usually three meals in twenty-four hours, one in the morning, one in the afternoon, and another in the night. But there is much irregularity in all these points of their history. A part of the worms are often at rest in their nest while the others are out feeding. And when they are about to cast their skins they wholly cease from feeding for one or two days, remaining all the time within the nest, those portions of the brood which are not ready to moult being at such times the only ones which go out to feed. From the most exact observations which I have been able to make, each worm appears to consume about two-thirds of an apple leaf at each meal—the leaves being small when the worms are young, and fully grown as they attain their full size. A worm an inch long which I confined in a tumbler fifteen days, noting the number and size of the leaves I fed it, ate on an average an ordi-

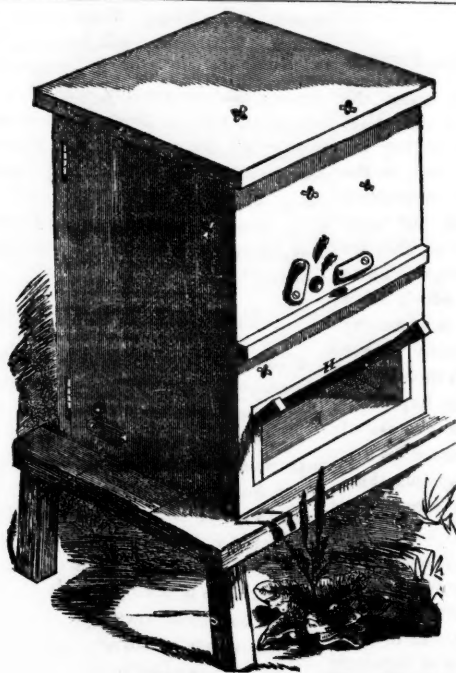


Fig. 1.

The Harbison Movable Comb Hive.

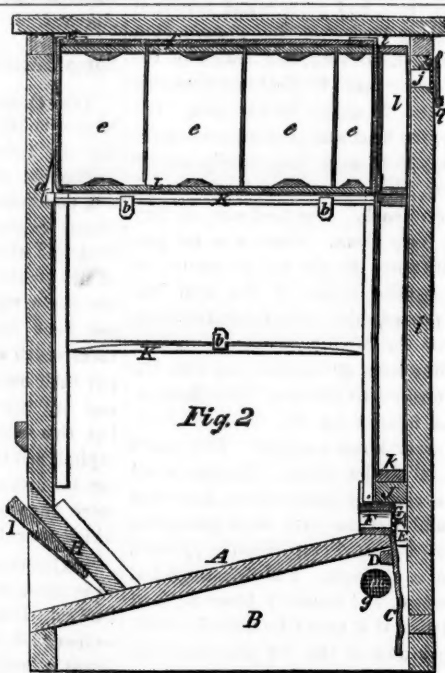


Fig. 2

Fig. 1. The Harbison Hive as it appears when complete and in use.

Fig. 2. Section showing the divisions and the position of the movable frames and boxes for honey.

nary sized apple leaf, two and a half inches long and half as broad, daily. But thus confined, it took no exercise, and spun no web; and it thus required but half the food, probably, which it would have consumed had it been at liberty. I regard this, therefore, as confirming the correctness of the observations which I had previously made. It thus appears that each worm devours two leaves daily. And as each nest contains about three hundred worms, every owner of an orchard will perceive that with every caterpillar's nest which he allows to remain upon his trees, the trees lose six hundred leaves daily.

"They always travel upon the upper side of the branches and limbs. And each worm wherever it goes, spins a thread of silk, which not only gives it a more secure foothold, but serves also as a clue to guide it back to the nest again. Much of the traveling of these worms appears to be solely for exercise. As one after another has satisfied himself with food, he comes back to the nest and walks around upon its surface in every direction, thus adding new threads to it. Other worms having also completed their meal, are coming home to their tent every moment. Thus its surface begins to become crowded and is perfectly black with the multitude of full fed individuals which are rambling about upon it, and the throng is constantly becoming more dense with new arrivals from the feeding ground. Hereupon some of them start away, up one of the limbs leading from the nest, and which is covered with cobweb threads from having been so often traveled before. Others follow after these leaders, and the limb through its whole length is soon thronged and black with a procession of worms, going out to its extremity and back; thus making room on the surface of the nest for other individuals who are every moment returning there from feeding. Having taken this journey to the end of the limb and back, and thus had the amount of exercise which they require, they crawl into the tent and there compose themselves to rest. Thus when but a few straggling worms remain upon the limb on which they have all been feeding, a few others will be seen journeying homeward to the tent, a multitude of others will be seen walking about upon the surface of the tent spinning their threads, many more will be seen traveling upon both of the branches which fork off from the tent, some of them going out and others coming in, whilst the inside of the tent is black with the multitude that has completed their labors and retired to repose. The ranks of each of the sections first specified gradually become thinner, until at last all have with drawn into the tent."

Seed Corn Protected.

The Iowa Farmer states that some of the farmers in the Black Hawk Valley have tried soaking seed corn in spirits of turpentine and found that it was a sure protection against squirrels and crows.

Wheat.

There is no grain that is grown of more importance to the farmers of Michigan than white wheat, and to grow a pure sample, and a full crop at the same time may be put down as the acme to which every farmer desires to attain. Yet how seldom is both or either obtained? Yet as a general rule the full crop seems to be got much easier, and oftener than the pure sample. The growing of a pure sample of white wheat depends very much on the selection of seed; and when it is considered how easily seed will become mixed both in the field while growing, and in the handling after it is grown, the keeping up of pure varieties is not such an easy matter as may be supposed. Neither is the best grown so often as many suppose, and in proof of this we ask a little attention to the following extract which is taken from the Detroit Advertiser, and which is unquestionably correct, and shows how few of even those who have the reputation of being experienced are real judges of what is a first rate article:

"We not unfrequently hear complaints of our quotations for wheat being too high, and occasionally disappointment attending the speculations of those who have purchased with reference to them. If this is the case, it can be the fault only of the parties themselves, as in every instance our quotations are strictly correct. A country merchant will be offered a fine sample of white wheat; he will see our quotations for extra white to be say \$1.45, and he calculates that he can afford to pay for it so much. Now had he but samples of the standards found in the rooms of our Board of Trade, he might have discovered that what, being very fine grain, he had supposed would have graded extra, was in reality but indifferent No. 1, and that our quotations for that grade were but \$1.39 at 1.41. Thus it is that mistakes are so often made. Buyers in the country seem to forget that "extra white" is a grade equal to the best "white Kentucky," which in the New York market commands the highest price paid. Our No. 2 white in ordinary seasons would be a fair article; No. 1 would be very prime, and extra would only occasionally be found. Last year the crop being of unusual excellence a very considerable proportion of the receipts went in as extra, but of late little or none of this grade has arrived. We recollect a case that occurred in the fall. An Eastern buyer went out on the line of the Central Road and purchased what he conceived to be extra, but which on being inspected proved only No. 1. He was dissatisfied and raised a fuss. The committee on inspection took the matter in hand and on comparing a fair sample of his wheat with the standards it was found, sure enough, that nothing better than No. 1 could be made of it. He went away satisfied that the mistake was his own. So doubtless it has been with others; not the inspection nor our quotations that have been at fault but the buyer's own judgment."

Now the great difficulty in procuring a pure article of white wheat from which may be grown the kind known as "Extra White," lies in the difficulty of procuring good seed. Nearly all the samples of white wheat that re submitted for inspection have more or

less red mixed in with them. Take up a handful of that which is called pure white, and spread it out, and carefully pick out the grains of red wheat which will be found amongst it and out of every hundred at least from twenty to thirty will be found either "red," or inferior.

White wheat bears the highest price for two reasons: One is that it makes a whiter and more choice article of fancy flour for use in families, and for which the highest price is given, just as the highest price is given by those who can afford it for the choicest cuts of a fat steer, or for the best portions of a fat sheep; again it is wanted by those who can purchase red wheat or mixed wheats at less rates, to mix with these kinds, and thus in some degree to aid in giving a white character to the flour manufactured. The spring, winter red and mixed wheats being always easily to be had whilst the pure white is scarce, the reason of it being high in price is obvious. At the present moment, Wisconsin spring wheat is worth \$1.25 in the New York market. The miller takes three bushels of this wheat and adds to it one and a half bushels of white Kentucky or white Michigan, which sells at \$1.65; and thus puts in market a quality of flour that passes inspection probably or retails out as equal to fancy, and which nets him a fair profit; whereas, if the red wheat were ground up alone, it would have to go upon market as both inferior in color and quality, and of little comparative value.

Now it will be seen from these two reasons why white wheat is in demand, and also why dealers are particular, when they pay the highest price, that they get the pure article. The generality of white wheat grown in this State, has a mixture in it of inferior kinds, ranging in amount from twenty to forty per cent. This adulteration, in a great measure, is owing to want of care in the selection of seed, and then to careless cleaning. A pure sample of the best white wheat will command and ought to bring in this market at the present New York rates \$1.45, but in reality taking its actual value as depreciated by admixture with other kinds not so valuable, very little is offered that ought to bring over 1.38 to \$1.40. If the pure article is to be had, there is no trouble in making grades of wheat and flour to suit the market. But to get the fine samples of pure white is not so easy a matter as many suppose, especially since it has been found that Mediterranean or red varieties are more reliable as a crop.

Disease in Potatoes.

A writer in the Rural American claims that the potato disease is caused by Aphides or plant lice, whose eggs are hybernated about the eyes of the tuber. He says:—I have as sound a potatoe as could be got, that was corked up so tight that nothing outside could get in, and nothing inside could get out, and now that potato is covered with many thousands of Aphides, evidently hatched out of the eggs that were hybernated on the potato to destroy the next crop.

Wheat Growing.

EDITOR FARMER:—I am somewhat extensively engaged in farming and raising fruit trees, and propose to give you from time to time brief notes of my experience.

Last year I harvested a field of 36 acres of wheat, which was put in as follows: The land was what is generally known as opening land, and had been laying some years in grass—very level and entirely free from stumps and stones. In July it was mowed, yielding only a light crop. I determined to break it up and set to work immediately. Got a heavy team, and plough and turned it over, ploughing 12 inches deep; gave it a very thorough harrowing, and drilled in the wheat the first week in September, sowing one bushel and 20 quarts to the acre. Before sowing, the field was divided into three equal parts, which were respectively seeded with Soules, Blue stem and Mediterranean wheat 12 acres each. The seed was all very choice and very clean. There was no perceptible difference in the soil or manner of cultivation. The result of the trial was somewhat remarkable. Rejecting fractions, we got from the Mediterranean 15 bushels, from the Blue stem 20 bushels, and from the Soules 25 bushels to the acre. The Mediterranean was injured by the frost in June, while the other kinds escaped. This year I am raising all Soules wheat. Another small field of six acres of same variety, harvested last year and put in with once ploughing after taking off a good crop of barley, yielded 31½ bushels to the acre. I never plough but once for wheat, and wouldn't have my land ploughed twice, if it could be done for nothing. I speak now of the dry porous soil of the openings or burr oak plains. The timber land soil or heavy clay soil anywhere requires very different treatment.

And now one word on another subject. There is a fortune waiting here for somebody who has enterprise enough to come and find it. We have all heard (all who read the FARMER) of underdraining, but so far as I am informed, not a rod of tile has ever been laid in Branch county. I undertook to get enough last spring for a field of twelve acres, but found the cost of transportation so enormous, that it discouraged me entirely. We want a tile maker, and if Mr. Daies will send along one of his machines and a live man to run it, he can make money at the business.

Yours, H. C. GILBERT.

Coldwater, May 6th, 1890.

Castrating and Docking Lambs.

The time is now at hand when sheep growers should pay more than ordinary attention to their flocks, especially to the ewes and lambs. The mode and time of docking and castrating my lambs, which I have adopted for the past twenty years and which I have found very successful, I can confidently recommend as follows: When the lambs are from one to two weeks old, they should be docked and ear marked, if the latter is practiced by the owner. The tail should not be left more than one and a half or two inches long, as the sheep not only looks better with a short tail but it keeps much cleaner. These operations should be performed in good weather.

Get up your ewes and lambs in the latter part of the afternoon in a dry yard or shed. Drive them into a pen where you can select out the lambs without raising them much. As you pick off the lambs put them in a snug pen, and let the ewes out into the yard. If the weather is pretty hot let the lambs cool off before disturbing them further. If convenient, have a man to hand them out to another person who holds the lamb in such a position as suits the operator, who should now with a suitable instrument (I use a sharp shoe knife) first mark the ear and then take off the tail with a quick blow. Let the lamb go and he will find his mother, and after suckling, both the ewe and lamb will usually lie down; the mutilated member will then stop bleeding. Keep them in the yard over night.

In about six or ten days after this, bring up the ewes and lambs as before in the latter part of the afternoon, drive them in a close pen and select out the ram lambs and those that want tailing. Have a man to hand out the lambs to an assistant, who should be seated upon a low stool or bench. The assistant should take the lamb by the hind legs, one of them in each hand, and place the lamb on his back with the rump in the man's lap, and his head against his breast, as this will be found the most convenient position for the operator. The ewes and lambs should be kept in the yard over night. In the morning the lambs will go off as smart and lively as if nothing had occurred.

Docking and castrating should not be performed at the same time, as the operations

together are too severe for the lambs. I think docking the more severe operation of the two.

These operations are often performed in the morning, and the sheep then turned to pasture. The ewes are hungry and ramble about in search for food, and the poor mutilated lamb has to drag along after its dam, the hot sun and exercise often causing the loss of much blood.

If any sheep grower will try this plan once, I think if he is possessed of any human feelings he will not again perform these operations in the morning.—O. F. M. in *Stock Journal*.

Some Sensible Remarks on Old Pasture.

The Connecticut *Homestead*, under the head "What shall be done for our Pastures?" has the following remarks, that if they are applicable, as they questionably are, in the old, populous, and rich State of Connecticut where capital is constantly laid out upon land, and where it is of high value, they are of still greater application in Michigan. There are acres upon acres here, on which labor has been laid out in clearing and making them worth something that actually do not pay their owners two per cent on their value, and are not likely until further improved; but this cannot be done without the use of capital, and that will not be invested until it can be first shown that it will pay something more than ten per cent. The remarks to which we refer, are the following:

"Almost every farm has from one-quarter to one-half of its surface devoted to pasture. It is calculated that the farm must summer all the stock it winters. If it produces a hundred tons of hay on a hundred acres, and winters forty head of cattle, it takes at least hundred acres under ordinary management to carry these forty animals through the season of grazing. These pasture lands are of all varieties found in the State. While the most of them are rough and rocky, and many of them have never been subjected to tillage, others are old meadows nearly exhausted of their fertility. Lands that will not pay for mowing are turned out to cattle, that they may bring in some scanty income to the owner for the use of his capital. As a rule, these pastures do not pay as well for the money invested in them as the cultivated fields. Probably they do not yield an interest of two per cent. A large portion of them properly come under the head of unimproved land. Nothing has been done for them for generations. Even the manure of the cattle fed upon them is but partially returned to them, as the cows are generally yarded at night. As all their products or the greater part of them have been carried off for generations, they are reduced to great barrenness. It often takes five or six acres to furnish a meagre support to a cow.

These unproductive fields are one of the painful evidences of the wretched system of husbandry that has prevailed among us for the last half century. They grow naturally out of the system of cultivating a hundred acres of land with a capital adapted only to ten, and working them with a boy and one hired man. There must be a change in the plan of operations before the evil can be wholly remedied. In some parts of the commonwealth a change has already begun, and we throw out a few hints to help forward the work.

For a certain class of these lands drainage is the only cheap and effectual remedy for their barrenness. We have in mind now, a farm of three hundred acres, with about eighty acres of low swamp land, lying in two tracts of about equal size. They are both threaded by one small stream, that runs perhaps eight months in the year. A part of these lands are already cleared, and covered with coarse grasses, moss, skunk cabbage, and other aquatic plants, and the rest supports a dense growth of alders, whortleberry bushes, brakes, briars and grape vines. The whole eighty acres does not yield grass enough to support three cows through the summer. Five hundred dollars laid out in drainage, cutting brush, and sowing with grass seed, would put every acre of it into the best pasture-land upon the farm. It would then carry forty head of cattle through the season in good condition. We have patches of such land upon half the farms in the State, that might be drained at a small expense, and more than quadruple their present productivity. We speak now of surface drainage only.

There are other tracts of swale land that might be greatly benefited by the same operation. Sometimes several acres might be permanently helped by running a ditch through the centre, and breaking the rim of the basin that holds the water. For all these wet lands there is no permanent help but in drainage.

Where this improvement is introduced, the change is wonderful. We have known worth less swamps and marshes changed into fat pastures, capable of carrying a cow to the acre through the summer. The muck soils can generally be made to do this, with good management.

For the barren plains, there is no help but in cultivation. The elements of fertility are gone out of the surface soil, and they must be broken up and fertilized, either with green crops or manure. Where these pastures lie remote from the barn, it is the best economy to bring them up by sowing clover, or buckwheat, and plowing them under when in bloom. This course will bring up from the depths of the soil some of those elements of fertility that are wanting, and will soon gather carbon enough from the atmosphere to answer all the wants of the grasses. Two seasons of turning in green crops would bring many of these lands into good pastures. They would of course need to be laid down, and stocked with herdsgrass and clover as for mowing."

Produce from Small Farms

Elihu Burritt who has been visiting in Canada notes the produce of some small farms that came under his observation. He says:

"The most satisfactory case of this kind that came under my own observation, was that of Mr. Aaron Mirick, of Mirickville, in the Rideau Valley. Although largely engaged in mercantile and manufacturing enterprise, he cultivated a little farm of six acres last season, with the following result:

50 bushels of wheat.
150 bushels of corn.
40 bushels of oats.
250 bushels of potatoes.
1100 bushels of turnips.

Now it would be interesting to know how many 100-acre farmers in twenty, among your readers, can show a larger yield than this during the last year. Here are forty bushels of grain to the acre to begin with; then there are 1,350 bushels of potatoes and turnips, or over two hundred bushels from the same space.

A Mr. Hobson, of Thorold, C. W., gives the following as the produce of twenty-five acres, which we think is worthy of note:

24 tons of hay at \$8 per ton	\$192 00
158 bushels of barley at 60 cents	95 00
164 bushels of corn in the ear at 30 cents	49 20
8 tons of well-cured corn stalks	15 00
150 bushels of carrots at 25 cents	37 50
140 bushels of potatoes at 25 cents	35 00
1 beef cow sold off farm	29 00
400 lbs. butter of 8 cows at 12½ cents	50 00
450 lbs. of pork fattened, at \$5 per cwt.	22 50
100 poultry, the produce of	25 00
Fruit from garden	22 00
Total value of produce	\$572 20
Expense of working farm	200 00
Net profit	\$372 20

Native Plants for Hedges.

Fagus ferruginea.—Some years ago, my attention was directed to the American Beech, (*F. ferruginea*), as a suitable plant for hedges, from the fact that in the open pastures on the borders of forests, the shrub had been trimmed up by cattle and I noticed it succeeded well under this rough treatment, thickening up and forming a shrubby and compact appearance. This led me to study it more fully, and I found it to possess qualities admirably fitting it as a hedge plant for Northern localities. These qualities are: it is a native of our soil, it is hardy and long lived, it is comparatively free from the attacks of insects, it will bear cutting, and if pruned properly will become thick and bushy, and will be impenetrable to man and beast; and it sprouts less luxuriantly than most other trees.

The method of making a hedge of the *Fagus ferruginea* is as follows:—Obtain the young sprouts from the woodlands, place them seven or eight inches apart, then bend them in opposite directions so as to cross each other and form a trellis, with apertures five or six inches in diameter. During the first year they should be bound with osier at the places where the sprouts cross, and in a short time they become grafted, and finally grow together at the points of intersection.

It is also reared without difficulty from the seed, and if the soil is good it will grow rapidly, forming a handsome and sufficient hedge in the course of five or six years. The seeds should be planted thick, and the plants kept well pruned.

Betula alba.—The White Birch, (*B. alba*), has before been recommended for hedges. I do not consider it so good for that purpose, nor to possess so many requisites as the Beech. It has, however, one advantage—that of growing upon the poorest soils. It is also more liable to sprout than the Beech, but will bear any amount of trimming. The seed can be obtained very easily by laying down a shoot and bending the tree over, stripping it off at the same time. Turn one furrow where

the hedge is wanted and sow the seed, covering lightly.—S. L. B. in *Gardener's Monthly*.

Striped Bugs and Gas Tar.

BY J. B. TURNER IN CINCINNATI.

Year before last, I lost all my cucumbers and melons by the striped bugs, in spite of all my efforts to save them. I knew and applied all the usual remedies of chickens, lime, ashes, sulphur, tobacco, quassia, manure-wash, poudrette-wash, etc., but my ground was old and full of bugs, and the spring wet, and all failed me, and I had no crop. But last spring, I determined to have a crop in spite of them; so I set my men to making boxes out of old boards, six inches wide, and cut and nailed together so as to make a box about one foot square and six inches high, without either top or bottom. These I intended to place over the hills then planted, and cover them with millinet, so as effectually to keep all the bugs off. This is an old remedy, and perfectly effectual, when done well, and objectionable only on the score of the cost, and also because the gauze interrupts the free flow of heat and air, and, to some extent, dwarfs and injures the plants. Well, as usual, when we came to plant the vines, one Saturday, I found the millinet had not been prepared; we were not, therefore, fully ready. But I thought I would have them planted, and the boxes set over them as far as they were made, and get the millinet on Monday, and nail it on; but as we had been using some common gas tar, it occurred to me, after the men had planted the melons, that these striped bugs never fly down upon a sharp angle, without first lighting to get a new start and aim; and I thought that, if I should smear the upper edges of these boxes with the gas tar on hand, it would probably have two effects: first, tend to confuse the smell of the bugs, and second, to repel them from their only place of lighting on the upper edges of the boxes, preparatory to their descent into the hill. I did this, and left them. Some time the next week, the boys came to me and said that the "bugs had eaten up all the melons again." Remembering, then, that I had previously forgotten them, I hastened into the garden, expecting that all was lost; but, quite to my surprise, I found that, while they had eaten most woefully every bill that had no tarred box over it, not a single bug could be found in any one that had been so protected. I also observed that the plants within the boxes were much more green and thrifty than those outside even if not bitten, owing to the box keeping off the cold wind, and concentrating the heat of the sun upon the hill.

I then took the other boxes made, and tarred the edges the same way; drove all the bugs away from the remaining hills that still had some whole plants in them, with a brush and waterpot, and placed the boxes over the hills. After this, not a single bug molested the plants, though the garden was full of them.

It need not be said that the boxes should be placed so close to the ground, all around, as to prevent their crawling under. And, also, I think that, if the whole surface of the box, inside and outside, was tarred, it would be better, for two reasons: first, the boxes would be better and last longer; second, they would attract the power of the sun more fully, and hasten the maturity of the plants, if indeed, the gas that arises from the tar does not have some other effect still unknown, in making plants more green and healthy—perhaps, in repelling other invisible insects that annoy them, or furnishing a direct food or stimulus to their leaves, besides the increase of heat. At any rate these boxes have the following great advantages:

1. They are cheap, much cheaper than gauze or glass, and can be safely packed in a corner of the garden, and used year after year.
2. They keep fowls entirely from the hills, if placed on when planted.
3. They not only keep off all kinds of bugs and vermin above the ground, but they bring the plants forward a week or two sooner than they otherwise would grow.
4. They are no trouble, comparatively; once put on and tarred, a man may leave his vines to take care of themselves, so far as fowls or bugs are concerned; and I think they tend to repel all kinds of insects, whether above or below ground.

I have another thing, also, to say, about this coal tar, namely, that mixed with one-half spirits of turpentine, with a little lampblack in it, it can be used in May, with a brush, to cover the lower parts of peach and apple-trees, for some eight inches above ground, and also in the forks of apple-trees, if needed, with perfect success, to repel the beetle that lays the egg for the different forms of borers; and I think a light cover of it, put on in

spring, is the easiest way in which they can surely be kept off, without injury to the tree. On twenty acres of apple-trees on my old farm, the present owner uses the coal tar alone; but I think, when mixed as above, it is somewhat less glutinous, and less likely to injure the trees when used in excess, by headless hands, than when pure.

The spirits of turpentine alone may be applied, with entire safety, to kill all forms of lice whatever, on fruit trees, by giving them a light brushing with it in the early season, just as they first commence their active summer life. An apple or pear tree can be covered all over with it, without harm, so far as I have seen; and it has this advantage over all other known remedies, that it seems to penetrate and enter, for a time, into the circulation of the tree itself, so as to destroy the vermin even on the parts which it does not touch. Indeed, one man told me that he effectually drove all insects of the kind from his trees, by only brushing it upon the crotches and larger limbs, just as the sap began to rise; but I have not experienced this myself, and cannot say; yet, I have applied it freely to all lousy trees, with entire success for years.

Climbing Plants.

In almost every garden a few climbers are necessary, either to train on trellises, to cover up some unsightly object, or to form a partial screen for any purpose. Vines of some sort, either useful or ornamental, should always be trained to cover any fences which may be necessary near the house. For such a purpose nothing can be better than the ordinary Isabella Grape Vine, which is both useful and ornamental, and which grows with very great rapidity, in this respect equalling any plant which can be procured.

If it be desirable to have perennial climbers, a selection may be made from the following, all of which are fine:

Virginian Creeper. This is a very ornamental plant, and is valuable for its hardness, beauty of foliage, and the rapidity of its growth. It supports itself by means of little rootlets which insinuate themselves into the most minute crevices and maintain their hold with the greatest tenacity. It grows to an enormous size, frequently covering the side of a house or climbing the trunks and spreading over the branches of large trees. In autumn the leaves, like those of some of our forest trees, assume a variety of rich scarlet, crimson and purple shades, which render the plant peculiarly ornamental.

The common English Ivy is very highly esteemed, but does not seem to succeed very well in our climate. It is probable that the changes of temperature are too sudden and great, and the heat of the sun too fervid, for its successful cultivation.

Bignonia radicans or Trumpet flower is a splendid climber, not quite hardy enough for successful cultivation in this latitude, although doing well in favorable localities. The foliage and flowers are both very handsome; the latter being of a rich scarlet color, large and trumpet shaped.

Aristolochia sipho is a rapid climber, with very large dark green foliage, with singular pine shaped yellowish brown flowers.

Clematis. There are many varieties, all ornamental. Clematis flammula is a luxuriant climber, producing an abundance of fragrant white flowers in August and September. Clematis azurea has fine, large, azure blue flowers. Clematis Sieboldii has flowers three inches in diameter, white and purple in color. This is a very elegant and desirable variety.

Honeysuckles. These well-known climbing shrubs are all beautiful, and many of the varieties are fragrant. The Scarlet Monthly is a rapid grower, with deep green leaves, which make a fine contrast with the rich scarlet flowers. The common Woodbine is a vigorous growing variety with buff flowers, fragrant. The Chinese Honeysuckle is nearly an evergreen, hardy, fragrant and beautiful.

Wistaria Sinensis. This magnificent Chinese climber is perfectly hardy, and when a few years old bears an immense profusion of light purple flowers, before the leaves appear in spring. They are deliciously fragrant.—It is rapid in its growth, and will cover a very large space.

Periploca, or Virginia Silk Vine. A beautiful vine, with glossy foliage and singular brownish flowers.

The Boursault and Prairie Roses are also excellent plants for covering walls, fences, &c.; the principal objection to them being the liability of the foliage to destruction by insects—all the other plants named being remarkably free from the attack of vermin.—G. B. H. in *Country Gentlemen*.

The Garden & Orchard.

Summer Fruits for the Table.

BY T. T. LYON, PLYMOUTH, MICH.

No. II.

The Raspberry is a comparatively recent introduction to an ordinary farmer's garden, but it is rapidly assuming, if indeed it does not already occupy, a position second only to the currant in importance. Indeed, this fruit has always been highly esteemed as a means of adding variety to the table; but, heretofore, the supply, generally scanty and uncertain, has been drawn mainly from the hedges and fence corners. Within the last few years, the attention of scientific horticulturists has been directed to the improvement of this fruit; the result of which has been the introduction of many improved varieties; till, by the production of a class which are claimed to be *everbearers*, there is, at least, a prospect that we may secure a succession of this fruit from July to October. Among the varieties of this character, that have been brought before the public, are Catawissa, which was discovered wild, at a place of that name, in Pennsylvania; Bayley's Everbearing, originating near New Haven, Conn.; and several still older varieties, which seem to have been conceded to be failures. To these we may also add several recent French varieties, not yet fully tested here, but which give a reasonable promise of success.

This fruit, unlike the currant, *will not bear neglect*. It flourishes best in a moderately rich, rather light soil, and will be all the better for a light mulch, during the hot portion of the season. If the soil is very rich and moist, it seems, according to the writer's experience, to encourage the production of sprouts, at the expense of the fruit. The canes are liable to be injured by the freezing and thawing of our winters, when left exposed; and, even if not killed by such exposure, their productiveness is found to be greatly increased by laying them down, and covering slightly. The injury is supposed to be due to the drying effect of the sun, rather than to freezing; a slight covering of anything that will shut out the sun's rays is, therefore, sufficient. A coating of straw would be just the thing, were it not for the depredations of mice, to which it would furnish a shelter. The writer's practice is to place a shovel full of earth at one side of the canes, and then bend them carefully over it, throwing upon them earth enough to cover and hold them down. In spring, as soon as freezing weather is passed, they should be taken up, the weaker canes cut out, the stronger ones cut back about one third of their length, and tied up to stakes, of a low trellis, to keep the fruit from the ground.

The fruit is produced on spurs, or short branches, of the current year's growth. When the canes are cut back in spring within a few inches of the vase, they will send up a new growth from above the surface, which will, usually, produce a fine autumnal crop. In this way, even the ordinary summer varieties may be, for the time, transformed into everbearers; or, at least, into autumnal bearers. The plants increase rapidly by suckers or sprouts; and, when suited with soil and culture, are exceedingly prolific.

For home use, Brinckle's Orange seems to be the most popular of the newer varieties. Yellow Antwerp and Fastolf are also exceedingly fine, but they are unsuited for transportation to market, on account of the exceeding tenderness of the berry. Red Antwerp and Franconia are more firm, and, therefore, better adapted to this purpose. Doolittle's Improved Raspberry is very highly spoken of, as of fine quality, and great productiveness. It is an improvement upon the common wild Blackcap of our fields; but it does not yet seem to be fairly understood whether its improvement is due to reproduction from seed, or merely to the effect of thorough and intelligent culture.

Plantations of this fruit should be made in the spring, in good, dry soil, well manured and pulverized. They may be planted from three to four feet apart, when each *stool* will produce a number of canes, which must be thinned and shortened, as before described, when they will fruit abundantly, the second season; and, with proper treatment, will continue productive for five or six years; when they should be removed, and replanted in a different locality.

The Peach Borer.

It is recommended that tobacco stems be procured and placed around the stems of the peach trees, as a preventive of the attacks of the worm. We think this method of hindering the insect from getting at that part of the stem where it desires to deposit its eggs worthy of a trial; and it certainly requires little labor and cannot do any harm.

The Science of Gardening—Budding.

In the issue of May 5th is inserted an excellent article, from the *Cottage Gardener*, on the above subject. The article was, of course, written for the latitude of England, and is, doubtless, a reflection of what is there esteemed the best practice; but Yankees pride themselves upon "knowing a thing or two;" and, in the process of budding, as well as in other things, have ventured to depart from the time-honored practice of their English "cousins;" and, as many of us allow ourselves to think, with decided advantage. I allude to the practice of removing the wood from beneath the bud, before inserting it in the stock. This is doubtless now in England, as it formerly was, everywhere, the only known method; but, for at least twenty years, the practice esteemed best and most successful, in this country, has been to keep a keen, smooth edge upon the budding knife, and to cut, as nearly as possible, just deep enough to pass the knife entirely beneath the bark; being sure, however, to err, if at all, by cutting *too deep*. The bud is then inserted as usual, but with the woody portion unremoved.

It was, formerly, the universal practice, in this country, to remove the wood from the shield, in the process of budding; but, more recently, the practice of thorough practitioners, in some of our best nurseries, has established the fact that the process is more successful without such removal. From the existence of an opposite practice, among English workmen, it is fair to suppose that it is more successful there. If this be so, it can only be accounted for from the greater moisture, and lower temperature of the English climate; which are more favorable to such a process.

Many workmen, in this country, also cut the bark of the stock in the form of an inverted T, (thus *T*), inserting the bud from below, and drawing it upward to its place, by the footstalk. In this case, the shield is left quite long, below the bud; and, after insertion, it is cut to fit the bottom of the *T*. Beginners, at least, will find this a more neat and rapid mode of performing the operation.

Plymouth, May 13th, 1860.

T. T. LYON.

Light Porous Soil for Fruit Trees.

In Turner's *Fruitist*, we find the following communication relative to the effect of having the soil about trees properly consolidated, and not too light:

This is a subject that has for a long time been under my notice, and I am only sorry that some of my brother gardeners have not taken up the matter, and recorded their opinions and experience upon it. But to the point. I will first of all record what circumstance first led me to suppose "all was not gospel that was preached" upon this vital point of fruit-tree border management. I was brought up in Suffolk, under one of the "old school," whose yearly crops I never yet saw surpassed, either in-doors or out; and as to his wall of peaches and nectarines, why they were worth a day's journey to see, and what is more, I never knew them to have the slightest protection or covering of any kind; a space of about eight feet was allowed from the wall as a border for the trees to grow in, and over this space was a constant traffic to and fro for pedestrians, and even *carts* were taken over it, till the surface had become as hard as a common road. I well remember the old gentleman's remark to me, when one day, after reading some observations upon the policy of having fruit-tree borders open and porous, from one of the leading magazines of that day, I took upon me to hint that, from what I could gather from the books I had perused, he was not quite right in the management of his border: "Ah, my boy," said he, "don't you pay heed to all the new-fangled schemes that you hear of, but use your eyes and brains, and draw your opinions from what you see passing around you. Make nature your principal study, and gather facts from her. She will not deceive you far. Look through the woods and fields, and tell me where you find the finest trees; I have always found them myself in old pastures, where the cattle have for generations been accustomed to tread upon and around their roots, till the soil had become like a rock. But as to the borders, mind and well drain them at the time of making; use good maiden soil at planting—no manure, recollect. Choose good, clean, young trees, and don't plant too deeply; when planted make your trees as firm as you can, and you will always find the trees upon firm soiled borders—when well drained—make much better wood; there is no coarse superfluous growth, but excellent short-jointed fruitful shoots, which will ripen up as hard as iron, and you'll find in the end

you will always get better crops than those whose soil is loose and their trees more vigorous. Your trees will also be much longer-lived than theirs will." There was also a vinery at this place planted upon the same principle, with a broad gravel walk covering the border, and the produce was always most satisfactory—far more so than since it has fallen into other hands, and the "new-fangled" system has been adopted.

Another instance I will adduce, and bring the name of one of your valued and excellent correspondents into question—whose name, by the bye, I have not seen in your pages lately—that of Mr. Saul, of Stourton. At his place I saw several years successively the most splendid crops of Apricots and wall fruit generally that ever man could desire to see, but his borders were far from being so light and porous as the anticonsolidation writers of the present day could wish us to adopt as a primary cause of success. He is, I believe, very particular as regards the drainage, &c., and never permits any unnecessary treading upon his borders, but allows them to become naturally firm, only running the hoe over them now and then, to keep down the weeds, &c.

Again, two years ago I took charge of an extensive place, and on going through the houses I was grieved to find that the vines and peaches were in the most wretched state imaginable. Upon asking the foreman a question or two, he said, "Oh, sir, they have been sadly over-cropped and the soil is bad, but we have been mending it these last three or four years by digging a lot of leaf-mould and long dung into it every year; the borders are getting nice and light now, and we are in hopes that in a year or two they will recover again!" Upon going outside, I certainly found the borders becoming "nice and light," for upon walking over them the feet settled down as if one was walking over a heap of rotten leaves. After examining the drainage and finding that efficient, I got some good loam and spread over the borders, and allowed it to be tread firmly down, after which I covered the vine borders about two inches thick with good decomposed stable manure, and let it remain to be washed in by the rains, &c. Nothing more was done during the whole season but the hoe run over them occasionally. The last spring they had another top-dressing of manure as above, but the surface has not since been disturbed. The consequence of this treatment was that during the first season the improvement of the vines and peaches was far beyond expectation, and during the last year some of the very finest fruit that went into London were produced here; indeed, the words of the consignee, who is not by any means one of the easiest to satisfy, were, "The grapes and peaches that were sent up were magnificent."

Another instance I will adduce. I well remember seeing in Devon, in the year 1852, a wall of peaches and nectarines which were planted in a border of light spongy material, and every care was bestowed upon it to keep it open and porous; the consequence was that the trees grew most luxuriantly and grossly; the wood did not ripen, and was often half killed down in winter, even in Devon, and consequently little or no fruit was produced. My opinion was asked. My advice was: lift your trees, get some stiff loam and mix into your soil, and after your trees are again planted let it consolidate, do not fear treading upon it, &c. I have since heard that from this very wall they are gathering some fine crops yearly. I could enumerate several other instances that have come under my notice, but I think enough has been stated by me. I should, however, hope that others will take up this subject, and give us their ideas and experience upon it. Do not let it be supposed that I am advocating making cart roads over the borders—I am far from carrying the matter to that extreme—but I do think too many of our borders are made much too light.

The Curculio and its Treatment.

The curculio, and the various methods of treatment to destroy it, and prevent it from injuring the plum crop has been pretty well ventilated in all the agricultural periodicals for the past twenty years; and yet there are very few who now obtain a crop of good plums. The reason for this is because they begin to operate too late in the season. The plum trees are now mostly in blossom, especially in the southern counties of this State, and the time they attack the curculio, is this very week. Do not wait until the petals of the flower withers and the fruit is of some size, but begin now, and see whether a few of the early insects cannot be caught even at this time. We recommend the mallet and sheet as the surest method known, followed up every morning for the next six weeks. The in-

sects as they fall and are gathered should be put in hot water, or in the fire. This is surer to prevent any from being left to propagate, than crushing, or stamping with the foot. But the main point is to get to work immediately. The season so far has been warm, and will bring out all the insect tribe somewhat early. Be on hand for this one, and those who have trees will have no trouble in securing a crop.

Mr. Samuel Hoppin of Breedsville writes us on this subject as follows:

"One thing more in regard to raising plums. I have raised a good crop of plums annually. I tried a number of modes, and do not know in which I have succeeded. I usually put my leached ashes around my trees, and in the spring I wash them in strong brine and let it run down well around the roots of the trees. And as soon as the brine dries off, whitewash them well. And about the time the plums set tie a cloth around the body of the tree to form a ring, and keep it well wet with soft soap. The ring of soap is merely to keep any curculio or other insect from going up the tree. Then shake or jar the tree thoroughly two or three times a week early in the morning, until the plums are half or two thirds grown. In that way I have always succeeded in raising choice plums without injuring my trees."

Wine Farming and Making.

Wine Farming will, in a few years, become simplified, and almost as easily understood as corn planting. There is no mystery in it. Experience alone must teach the proper position and soil; the right distance apart for the vines; the most judicious methods of spring and summer pruning; and as for cultivation, keep the ground clean with the plow or cultivator, like corn. Certain rules are given in books, for vineyard culture, as pursued in the Ohio Valley. These are the European systems, adapted to our own country. It will be safe to follow these rules, until, by experimenting, we can find better. There is more room for progress in this branch of Agriculture, than in almost any other.

Making the wine is as simple as making cider. The great bunches are cut from the vines, and all unsound or unripe berries picked off the bunch and thrown into a bucket, to make—with the addition of sugar—vinegar, or an inferior wine. The perfect grapes of each day's cutting, are taken to the wine house, and in the evening, after being mashed in a barrel with a beetle—stem and berries—or passed through wooden rollers in a small mill, are put on the press, and the juice extracted. About one-third runs off without any pressure. The outer edges of the pomace are cut off for eight or ten inches, after the first pressing, separated with the hands, and thrown on top, when the power of the screw is applied, and another pressing made. This is repeated two or three times. The juice from the last pressing, being very dark, and astringent, is put with the inferior wine. The other is put in large casks, filled about five-sixths full, to ferment and make the good wine. No sugar or brandy should be added to the best Catawba juice—or must—as it makes a better wine without, and is strong enough to keep well. One end of a syphon is placed in the bung hole of the cask—the other being crooked over, rests in a bucket of water.

The fermentation commences in a day or two, and the carbonic acid escapes through the water. In ten to fourteen days, the syphon may be removed, the casks filled up, and the bung driven in lightly—in a month, tightly. In mid winter the wine is drawn off into another cask, and the lees of the wine, with the pomace of the grapes, is used to make brandy.

The wine will be clear, and pleasant to drink in a month or two after the first fermentation ceases. The second fermentation occurs in the spring—about the time of the blossoming of the grapes—this is but slight, and it will be merely necessary to loosen the bungs; when it is over, the wine will be clear in two or three months, and safe to bottle, but that operation had better be deferred until November. And this is the whole process of making still wine—the wine for general use; and, being a *natural* product of the pure juice of the grape, it is more wholesome than any mixed or *artificial* wine, however showy and high-priced it may be.

Let the grapes be well ripened; the press, casks, and all vessels perfectly clean, and then keep the air from the new wine, by having the casks constantly *bung full*, and there is no danger of its spoiling. This is the whole secret.

It is presumed that no one will go into wine-farming largely at first but take the precaution to test, by the cultivation of a few acres, the capabilities of his soil, position

and climate, and the kind of grape best suited to it—R. BUCHANAN, in *Ohio Valley Farmer*.

Amongst the circulars received is that of the Lyons Nursery, the proprietor of which is E. W. Sylvester. In this circular he appends the observation "that it is not designed to keep book accounts, as it is found by experience that the cost of collecting exceeds the profits." This is the exact truth, and no mistake, and we are pleased to see light dawn on nursery men.

HORTICULTURAL NOTES.

Charcoal.

Roses in pots drained with charcoal are less liable to mildew than those that are grown without the use of that article.

Double Crops of Grapes.

W. Simpson of Saxonville, Mass., has secured, by his process of forcing, seventeen crops of grapes in his vinery, in eleven years; the vines being in perfect health. His grape house is 80 feet long.

The Austin Shaker Seedling

Is the name of a new seedling strawberry that has been raised at the Shaker settlement at Watervliet, near Albany, N. Y. Samples of the fruit are to be sent for exhibition to the leading Horticultural Societies. Of course for the present it is a prodigy.

New Raspberry.

The *Steele* raspberry is a new variety that has been discovered in Vermont and taken to Philadelphia, where it is thought it will prove valuable as being more hardy than some of the kinds now depended on for crops. The berry is large, being three quarters of an inch long and one eighth in width, of a rich crimson color and good flavor.

Adair's Nurseries.

During a visit to Adair's nurseries on Jefferson avenue, in this city, we found that he had been receiving, during the present spring, a number of invoices of plants and trees direct from France and England. Amongst these were numbers of very healthy dwarf pears, and several new ornamental plants, which he is propagating. Mr. Adair has just completed a new greenhouse which is more roomy and extensive than his old one. The erection of such structures indicate that this business is growing.

The Turtle Bean.

The *Scientific Artisan*, of Cincinnati, says:—"There is in this neighborhood a small black bean called 'Turtle Bean,' used exclusively for soups, which, having the flavor of the turtle soup, so famous, are perfectly delicious. This bean is not much known, and deserves a more extended reputation. Lovers of good soup, which by the way, is not a favorite dish with Yankees, compared with the estimation in which it is held by Europeans, as a friend informs me who has traveled much in Europe, will admire the soup made with this bean, and encourage its growth and dissemination."

Scoring the Bark of Trees.

Meehan of the *Gardener's Monthly* has come to the conclusion that something should be done to prevent the induration of the bark of fruit trees, by making the head low. He had laughed a good deal at the scoring of cherry trees and apple trees as practiced by some, and had opened his eyes at the stripping of a tree of its bark, and so he writes thus:

"Some years ago, when in the neighborhood of Darby, Pa., we saw an apple orchard with trees having most remarkably clean, smooth and healthy looking stems. Inquiring of the son of the proprietor, we were told that his father divested the trunks of his trees of their bark every Spring. 'What,' said we, 'the bark itself? You mean the loose scales on the outside.' 'No,' he replied, 'he tears it off in strips like willow peel.' Our science was horror struck. The physiology of our school could stand no such treason to its constitution. Conceiving it was an attempt to 'sell' us, the subject soon passed from our mind.

Two years ago, a respectable farmer 'amongst the Dutch' in Berks county, Pa., told us that every year, in June, he regularly tore off the bark of his apple trees, with the happiest results. Had it not been for our previous experience, we should have classed it with the 'Moon's signs,' for which our brethren in that region are so famous. But, last year, as there was some talk about the deordination of the elms successfully in France, we thought we would try for ourselves if anything could come from such a barbarous experiment. So on the last day of June, we took a ten year old, well trimmed cherry tree, and from about three feet above the ground tore off the bark into the wood as far up as we could reach. Within a week afterwards, innumerable corrugations appeared on the surface; apparently exudations from the medullary rays of the wood, which soon met each other, and in about three weeks a new surface of bark, and new wood beneath it, covered all the north side of the tree; on the south side they dried up before meeting, and all the branches on that side subsequently died; but our partial success, besides teaching us some new ideas about the rise and fall of sap, to which we may refer when some more experiments, now in progress, shall have been made, taught us that there was truth in the common report. We have since met a gentleman of the highest character, who assures us that he strips maple trees between the 20th and 25th of June, entirely of their bark, and a new one forms immediately, to the increased health and vigor of the tree.

These facts we have now proved to be undeniable; but we are not going to recommend that trees should be scored and scalloped like a whittled rustic seat in a 'Down Eastern State,' or shorn of their bark like a May sheep of its fleece; but we do recommend that such unsightly treatment should be rendered unnecessary, by taking every possible care to prevent the induration of the bark, which is so fatal to the healthy development of trees.

Circle Culture of Fruit Trees.

BY JOHN J. THOMAS, OF UNION SPRINGS, N. Y.

I have examined with some care the length of the roots of my dwarf pears, set out last year, on my newly-occupied place, at this village. They were two years from the bud when transplanted, and are the oldest dwarf pears I have. Although the trees have had moderately good, but not high and rich, culture, I find no difficulty in tracing the roots 2½ feet from the trees, beyond which the fibres become too small to follow easily through a dry and tenacious soil. They have evidently extended over 4 feet; and small and young as the trees still are, they have consequently formed already a circle of roots 8 feet in diameter. I have no doubt that in richer and more porous soils, the roots would have run to a greater distance.

A most important suggestion is afforded by this fact—the indispensable necessity of great breadth of culture, when applied to young trees. These, it will be observed, are dwarfs, and the quince stocks on which they grow are generally supposed to confine their roots to a comparatively small circle; yet this circle has already a diameter nearly twice the height of the trees. The practice, then, of digging circles about the stems, instead of cultivating the whole surface, is comparatively useless, unless those circles are of a size to cover the whole extent of the roots, besides the soil which the roots of the surrounding grass may penetrate. It is not unusual for the grasses to send out fibres 2 feet; but admitting the distance ordinarily to be only a foot, then there must be dug a ring a foot wider on every side of the tree, if we would prevent the grass injuring the newly-extending roots of the trees. Two feet added to the eight foot circle already required would make 10 feet, the smallest dimensions for cultivated circles for dwarf pears the second year from transplanting when surrounded by grass land. When the trees have grown a few years more, the cultivation should extend much further. In other words, it should cover the whole surface; nothing less will answer under any circumstances.

There are many who do not cultivate their trees at all, but allow them to stand in ground occupied with weeds and grasses or hardened by summer drought. The roots of such will not, of course, travel very far, and they will make but little growth or remain stationary. There are many others who think it quite sufficient to spade a small circle around each; and the rule once given by Downing and copied since by other writers, is to extend the circle as wide as the spread of the branches, on the supposition that the roots run equally far. The heads of my dwarf pears, already spoken of, average 2 feet in diameter. A dug circle of this size, according to the rule, would be only one-fourth the diameter of the roots, and extend over but a sixteenth of their surface, exerting scarcely a perceptible benefit.

The practice, then, of digging circles may be set down as positively injurious by inducing cultivators to believe they are doing something really useful, when, in fact, they are doing almost nothing at all. It should be wholly discarded, and thorough, broadcast culture only relied on in all cases.

The dwarf pear, the plum, and the peach, especially, require constant and thorough cultivation. They cannot succeed in grass, where the apple and cherry might flourish well. I have long since discovered that spaded circles scarcely benefit the peach, and, a few years since, I performed an experiment to determine definitely the distance at which the peach would draw nourishment through its roots. A dozen trees of the same size and variety were set out on a piece of uniform land, and were cultivated for a few years, until about 10 feet high, when the land was laid to grass. A portion of the trees were within 3 feet of a compost heap, the rest at various distances. Those standing nearest the compost, made a summer's growth of 4 feet 8 inches. The tree that stood 7 feet off, almost as far as the height of the tree, threw out shoots nearly 2½ feet long. The next, at a distance of 15 feet, made shoots 14 inches long, while all others, 20 or more feet distant, grew but 7 inches.

Thus we see that a peach tree, 10 feet high, was doubled in its linear growth by a heap of manure, 15 feet distant, from which only a small portion of the roots on one side could derive any nourishment, proving conclusively that the roots must extend on each side to at least an equal distance—that is, that they form a radiating circle of fibres no less than 30 feet in diameter, or three times as great in breadth as the height of the tree. How perfectly futile the attempt to benefit such a broad surface by spading a circle, 2 or 3 feet in diameter, which will be but a hundredth

part of the whole area of the branching fibres.

I might state other facts, if necessary, tending to establish the truth of the position here laid down, but the preceding are sufficient, and do not admit the errors which sometimes escape experiments of a more random character. I furnish these merely as a small contribution toward the effort to induce planters, generally, to give their fruit trees that attention which they so eminently deserve, and which is absolutely essential to their good growth, and the full growth, and the development of the highest quality of the fruit. Until proper attention and thorough cultivation is given the trees, we shall not cease to hear stories of disaster and failure of their fruit.—*Patent Office Report.*

A Word about Asses.

BY BLOW JAMIE.

Now that the attention of the farmers in Michigan is turned to the raising of mules, some of our young readers may be pleased to hear something about their pedigree. The mule is sprung from the horse on one side, and the ass on the other. The common ass is about the size of a yearling colt but a great deal heavier. However, in Spain, where they take great pains to improve the breed, they have asses nearly as large as the common horse. He is of a mouse color with a black streak along the back and down the shoulders, in the form of a cross. In the east they have what they call white asses, but they are only a light red color. This is the color of the wild ass too.

It is a common notion that the ass is a stupid, vicious animal. This is true only in part. They are slower to learn anything than the horse, and they are so tame that many imagine they are broke when they are not. Then if they do not obey the word or the bridle, they are often beaten, and this abuse, as might be expected, renders them stubborn. In the old countries, in times past, it used to be common for a crippled beggar to ride on a donkey. When the owner would put up for the night, and turn out the animal to feed along the road side, a number of boys, and some of them old enough to know better, would gather round him to amuse themselves at the creature's expense. As soon as a boy would mount the animal he would put down his head, make a sudden bound forward, and lighting firmly on his feet, send the rider over his head with a wallop that would make his joints crack. Then the donkey would turn quietly to the grass, till some other boy would venture the game once more. Yet that same animal when the old man's bags would be thrown on his back next morning, would receive his rider as quietly as any horse you ever saw, and trudge along as though entirely innocent of the tricks he played the night before. Such asses were never bridled. Some had a rope on the head for a halter, and some had not. At the word 'comeer,' they turned to the left, at 'huff' they turned to the right, and a peculiar rattling or hissing through the lips stopped them. They could even be guided by the feet. Asses are capable of strong attachment. Two of them brought up together can hardly be separated. The affection of the dam for her young is remarkable, and badly as they are generally treated they are much attached to their masters.

They are very strong for their size and capable of bearing a great load. Three hundred pounds is counted a common load for an ass, a burden which we would consider too heavy for a horse twice their size. They will eat the coarsest grass and browse, with apparent satisfaction, on the prickliest thistle. But the slowness of their gait is the great objection in their common use.

In mountainous countries, such as Spain and South America, they will always be in demand. No other beast of burden is so sure footed on the mountain side. In some parts of the countries mentioned, everything is transported on the backs of mules and donkeys. The ingenious Spaniards can pack a small sled-load of hay or straw on the back of a donkey, the animal often being hidden by his load. When they come to a mountain pass with such a load, the driver must halloo at the top of his voice to find whether there is not another meeting him in the pass, for should they meet, one must unload, tumble his pack into the abyss below, and make his animal lie down to let the other walk over him.

I lately heard an anecdote from a British soldier about an ass in Gibraltar. The animal was used to carry water for hire to the garrison. He carried three kegs of water at once. One hung at each side, resting on the long pins of the pack-saddle, and one lay on the top between the other two, while the little black-eyed Spanish boy stuck on the animal's

rump, belaboring him now on this side, now on that, with a stick. They were firing off a cannon as he passed, and the gun bursting, the breech took the donkey's head, carrying it off clean. The beast never fell. Happening to be beside a fence he leaned against it, and, propped up by his stiff joints, the carcass stood there with the load. The boy escaped unhurt, and taking to his heels without ever looking behind him, made his way home to tell his padre that the *bereeka* was *morte*.—His father was soon back to see about being paid for his bereeka. The next morning he got ten dollars for him.

In Asia, asses are much swifter on foot than in the west, and indeed the wild ones are remarkable for their fleetness. They cannot catch them with horses. However, they are caught in pit-falls, and, strange to say, the principal object of the hunter is to use their flesh for food. It is said to be as good as the meat of a goose, but I think the goose ought to be poor and tough to make the comparison good.

Asses are more honored in history than horses. The former were used for domestic purposes when the latter were straying wild in the desert. Even when horses were domesticated, they were for a long time used only for show or purposes of war.

The Hebrew law-giver directed the people to disable all the chariot horses they took in war. Accordingly most of the kings of Judah kept no horses for war. And indeed when we consider the use of cavalry we could wish that modern nations would follow the example. As long as soldiers fight, rank to rank and company to company in the field, foot soldiers are counted superior to horsemen, but when the vanquished party throw down their arms and run for their lives, then horses are used to chase them, and cut the poor fellows to pieces.

The only time our Savior made any display he rode into Jerusalem on a young ass that had never been backed before, and probably was not bridled then.

When Othneil, a prince of the tribe of Judah, brought home his noble bride, the daughter of the renowned Caleb, she rode on an ass. In Deborah's time, men of high rank were poetically styled those that 'rode on white asses.' It is also said of the thirty sons of Jair the Gileadites that they ruled thirty cities, and could each ride on his young ass.

About eight hundred years ago, great armies were collected in all parts of Europe to drive the Saracens out of Palestine. Immense numbers perished by hunger, by disease, or by the sword, but still their place was filled up by new swarms. But what roused up such a martial spirit? An aged hermit riding bareheaded on an ass, and lecturing great crowds, was the moving cause. But even here we notice the growing disrepute of the once famous animal. Riding on an ass was a token of humility, and this was one cause of his great success. Except in mountainous districts, or very poor countries, asses are but little used in the Western Hemisphere. Horses and mules have taken their place. But still we ought to honor the animal for what he has been.

Flax a Substitute for Cotton.

The experiments now in progress, which it is confidently expected will result in the discovery of some process tending to cheapen the manufacture of flax into fabrics, are looked upon with great interest by cultivators in all sections where the cotton plant cannot be raised. This process has been watched and waited for many years. The difficulty has been in the preparation of the crude fibre for the loom, and not in the subsequent steps. It has been necessary to submit it to a tedious process of rotting, and then breaking and separating the fibres, the long from the short.

We are now beginning to hear from various parts of the country of improved methods of preparing the flax, consisting of machinery for breaking the flax without rotting or wetting; for washing out the glutinous matter and separating and purifying the fibre, for classifying the long and short fibres, by which an expert boy can do the work of fifty backlers, and in a far better manner, and in general simplification of the preparing machinery, such as the drawing and roving frames, so that a linen factory will require no more capital than one for cotton.

Experience with one of these improved machines now in use in Ohio, has shown that flax straw at \$5 per ton can be converted into fine linen fibre which will cost only 2½ cts. per pound, and that to go on and fit it for spinning is as cheaply as cotton, the whole cost will be only five cents, making linens as cheap as cottons.

Machines for breaking unrotted flax, cost about \$400 each, which break up two tons of unrotted flax per day, enough to make,

when refined and purified, some 400 pounds of linen goods. At Eaton, Ohio, the flax thus produced is, for the first time in that region, converted into an admirable article for covering cotton bales. In these machines the flax straw passes through a succession of fluted rollers, which hold, crush, and carry forward the sheet of straw, which divide the fibres without rupturing them, and clearing away the shives. The flax comes from the rollers in the form of a beautiful and comparatively clean sliver, felted together like cotton from the drawing frame of a cotton factory.

Now this machinery, says the *Tribune*, has not yet been applied to manufacturing linens, but it soon will be. There is good reason for linens being two or three times dearer than cotton goods, when the cost of the raw fibre of both is so nearly equal. Flax will not be grown extensively in this country, until the farmers can be relieved of all trouble of preparing it for market. But as new mills are established, supplied with this cheap American machinery, the case will be different.—The seed alone pays to grow it, and what may be realized from the straw, now thrown away, will be so much clear gain. Cotton grows only in hot countries, but flax in all climates. Europe consumes far more linen than we, because the price there is only one-half what it is with us. Whoever therefore sets up the first linen factories in this country, will probably realize enormous profits, just as the earlier English cotton spinners amassed princely fortunes.

FARM MISCELLANEA.

Suffolks at Paw Paw.

We note that at the sale of stock at John Wentworth's farm in Illinois, Mr. T. B. Irwin of Paw Paw purchased an aged Suffolk boar.

Light Stables.

If a horse was in the same condition as a polype, with no organ of vision, who shuns light, a dark stable might prove his earthly paradise; but as the horse has special organs of vision, evidently susceptible to the influence of light, and the integrity of his organs, or a part of the same, depending entirely on the admission of light, it is absolutely necessary that stables should be constructed accordingly.

An Ear of Corn.

A statement having appeared that upwards of 1,000 grains had been shelled from one ear of corn, a correspondent of an exchange paper, who thought he could beat it, shelled several ears, which produced as follows:—one 1,050 grains; another 1,100, and another 1,164. Some old farmers say that a paper wrapped around an ear of corn, the ear then taken out, will not contain the shelled corn of that ear. I tried it with two ears, and the paper would not hold the corn; one of those ears had 936 grains on it, of which 535 filled a pint cup. At this rate, it would take 34, 240 grains to make a bushel.

New Disease in Horses.

A correspondent of the *Iowa Farmer* states that a new disease has appeared amongst the horses in his vicinity, which was brought in by a diseased animal traded for by the post master. It is thus described:—"The first appearance of the disease is upon the neck; a small swelling from the ear down the throat-latch to the point of the jaw, but does not seem to be sore or troublesome. The horse's appetite becomes unusually sharp, and although he eats more than when in health, loses flesh fast, and becomes weak, stupid, and dies. Some die in a few days, while some linger a month or two after the disease is discovered." The disease is contagious, and about forty horses have already died from its effects.

To keep Tires on Wheels.

A correspondent of the *Southern Planter* says:—"I ironed a wagon some years ago, for my own use, and before putting on the tires I filled the fellys with linseed oil; and the tires have worn out, and were never loose—I ironed a buggy for my own use, seven years ago, and the tires are now as tight as when put on. My method of filling the fellys with oil is as follows: I use a long cast iron oil heater, made for the purpose; the oil is brought to a boiling heat, the wheel is placed on a stick, so as to hang in the oil, each felly an hour, for a common sized felly. The timber should be dry, as green timber will not take oil. Care should be taken that the oil be not made hotter than a boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptible to water, and the timber is much more durable. I was amused some time ago when I told a blacksmith how to keep tires tight on wheels, by his telling me it was a profitable business to tighten tires; and the wagon maker will say it is profitable to him to make and repair wheels—but what will the farmer, who supports the wheelwright and the smith say?

Sale of Ayrshires.

The *Boston Cultivator* states that: The sale of the imported Ayrshire cattle belonging to the Massachusetts Society for Promoting Agriculture, took place as advertised, on the 9th inst. The cows and heifers brought an average of \$98½—the four-year-old bull \$115, and the two-year-old \$85—the bull calf \$52½, and the heifer calf \$40. These prices, although very low, are perhaps all that could have been expected, considering that the animals are not allowed to leave the State, and the depression in cattle-enterprise from the excitement in regard to pleuro-pneumonia.

Keeping Horses' Feet and Legs in Order.

If I were to be asked to account for my horses' legs and feet being in better order than those of my neighbors, I should attribute it to the four following circumstances: First they are all shod with few nails, so placed in the shoe as to permit the foot to expand every time they move; second, that they all live in boxes instead of stalls, and can move whenever they please; third, that they have two hours daily walking exercise when they are not at work; and fourth, that I have not a head-stall or rack-chain in my stable. These four circumstances comprehend the whole mystery of keeping horses' legs fine, and their feet in sound working condition up to a good old age.—*Miles.*

The Cattle Disease in Massachusetts.

A meeting was called by the Cattle Commissioners on Wednesday in North Brookfield. Two of them, Amasa Walker and Paul Lathrop, were present, and delegates of ten of the County Societies, comprising several members of the Board of Agriculture, and several gentlemen of prominence, among whom was John A. Tainter of Hartford.—The examining surgeons were Drs. Dadd and Tyler. Several animals were killed with like results developed to those heretofore reported. The opinion expressed was that the disease cannot be eradicated short of the killing of all the animals that have been exposed.

A new case was discovered in Sturbridge—it having been carried thither by the purchase of a cow in West Brookfield, that had been exposed. The herd was small and was ordered to be killed at once. Other new cases were also confirmed. About 400 animals have been killed in all, and as many more are under suspicion. In 1847 the pleuro-pneumonia appeared in the herd of Thomas Richardson of New Jersey, who with most commendable foresight and public spirit, killed every animal upon his farm, at a personal sacrifice of \$10,000. This is a splendid example, and entitles Mr. Richardson to an enduring monument, as a public benefactor. The case also confirms the expediency of the work in which the Commissioners are engaged.

A public meeting was held in the evening at the Town Hall and was largely attended. The Rev. C. C. Sewell, delegate of the Norfolk Agricultural Society, presided. The meeting was earnestly addressed by H. H. Peters and Dr. Burnett, of Southboro', Dr. Dadd, of Boston, Freeman Walker, of North Brookfield, Prof. Clark, of Amherst, and several other gentlemen.

For various other reasons, prefatory to the one, given which we have not room to copy, Prof. Clark offered the following resolutions, which were adopted:

Whereas, The sum of \$10,000, appropriated by the last Legislature for the suppression of this disease is entirely insufficient for the purpose, and the Commissioners are not authorized to incur expenses exceeding that amount—therefore,

Resolved, That a guarantee fund of at least \$50,000 ought to be subscribed at once by the people of the Commonwealth to enable the Commissioners to prosecute their labors. This fund to be called for only in case the next Legislature refuses to make the necessary appropriation.

Resolved, That subscription papers for the guarantee fund should immediately be circulated in all parts of the Commonwealth, that those persons who desire to secure the extirpation of the disease, which is still believed to be feasible, may have an opportunity to do so.—*Cultivator.*

The amount of woolen goods imported and entered by the New York Custom House for the past four months of the two years 1859 and 1860, show an immense increase over the imports for the same time of 1858. For instance, the value of the woolen goods imported during the first four months of 1858 was a little over three millions of dollars; in 1859 and 1860 the value of the imports of woolen goods for the same period during each of those years was ten millions and a half of dollars. This will exemplify in some degree the difficulties manufacturers have to contend with. Besides this, the new French tariff takes off the export duties on woolen and cotton goods, which will permit those fabrics to come into this country at still lower rates than heretofore.

NEW ADVERTISEMENTS.

A. F. MOON, Paw Paw, Mich., Harbison's Bee Hive.

FARM FOR SALE.—The owner of a magnificent farm of 210 acres, located in Macomb county, a few miles from Rochester, in this State, is desirous of selling it. The farm itself has a fine large dwelling, horse barn, large barn sheds, carriage house, piggery, orchard, and garden. It is all cleared but about 80 acres, which is in wood; is well fenced, and under first rate cultivation. With the farm will be sold the stock and implements, which are all in good order, and comprise cattle, sheep and horses, together with the wagons, &c. used upon such an estate. The terms will be made easy.

For further particulars apply to R. F. JOHNSTONE, Editor of the Michigan Farmer.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, MAY 19, 1860.

Editorial Miscellany

We shall be pleased to hear from Mr. Hoppin again, and on any subject he will choose to report upon.

It will be seen by the proceedings of a meeting of the Cattle Commissioners in Massachusetts, that the disease is not yet fully extirpated, but that it is being eradicated as rapidly as possible.

We learn with much regret that Mr. Shoemaker, Esq., of Jackson has lost his fine Shorthorn bull, Prince Edward, owing to attack of inflammation of the bowels. Prince Edward has left some fine stock in Jackson county.

Complaints are reaching us from other States of a drouth, and for the past two weeks the weather here has been without rain, affording one of the finest seasons for getting planting done that we have known for years.

Dogs have been very destructive of sheep around Guelph, in Canada. One farmer, whose importations of Leicester cost him \$800, had only two sheep left out of a whole flock. Dogs are useful in their way, but when they use up more valuable stock in this way, they should be taken care of.

The Provincial Agricultural Exhibition of Upper Canada is to be held at Hamilton this year, and great hopes are entertained that the Prince of Wales will be induced to be present during his visit. A great exhibition is also in preparation at Montreal, to which the government have made an appropriation of twenty thousand dollars.

At a meeting of the State Board of Agriculture of Ohio, we note it is reported that in consequence of the frauds practiced by means of exhibitors and attendants' tickets, the Secretary has been instructed not to issue any, and to adopt the plan of giving the exhibitor simply entry tickets for the amount which he pays at the rate of twenty-five cents each. D. C. Gardner and N. S. Townsend have been appointed to visit the Michigan annual exhibition.

The experience of H. C. Gilbert, of Coldwater, with several varieties of wheat is well worthy of attention. The selection of the variety to be grown, is a subject that is becoming of very great importance, and is one that will repay attention. We shall be much pleased to hear at any time from our correspondent on this or any other subject, which may claim his notice. We shall have something to say on this matter of wheat culture before sowing time. Mr. Daines will probably attend to the wants of the community, but we suggest that if there is a brickyard in the vicinity its owner can easily be supplied with a machine and fixtures, and full instructions will be given. All the fixtures for a tile yard that would supply the community can be purchased for \$250.

The second annual fair of the Utica Association for the improvement and exhibition of live stock is to be held on June the 13th and 14th. We note that the show is not confined to Horses alone, but that the owners of Durham and Devon cattle are invited by the offer of premiums to be present also. Utica is surrounded by a very fine farming country, and there has been a great impetus given to the breeding of horses by the fact that Magna Charta was raised in that vicinity. We learn that a number of colts from the same horse that shed Magna Charta will be on the ground, and that the competition for the premiums will be sharp and exciting and call out a large attendance. The preparations for the reception of guests are liberal, and the show promises well.

One of the latest dodges that we have recently had pictured out to us for getting rid of the work of walking after a team on a farm, is a wheel cultivator, with a spring seat, and of course a velvet cushion for the driver; the only thing that was wanting about it to make it a perfect farm implement, was a place for a little nigger boy to sit and hold a sun shade over the driver's face, and thus protect

his complexion from being spoiled. Only think of a team working a wheel cultivator, and carrying a great hulk of a fellow besides! Would not we like to see the farmer that would feed his team, and keep them in condition for the purpose of toting his hired man over his plowed ground? We only note this as one of the useful agricultural patents recently issued, and it shows how much many inventors really know about the wants of farmers. Another dodge of the same kind is a machine got up, with a seat, of course, in which a team is first to carry the driver on "springs," and then it undertakes to dig and gather potatoes, it is also presented to farmers who would prefer to ride and drive, rather than "grapple up the taters," by hand power. Splendid acquisitions, these are for the working farmers, and we don't see how so many will continue to do things in the old way, or why children are born with feet and legs any more. According to Darwin's hypothesis recently published, if these inventors go on, the farmers of the country will very soon show no development of lower extremities, as not having use for feet and legs. Nature will cease to grow them, whilst the demand for spring seats and cushions will give work to an immense horde of manufacturers, that are yet in embryo.

Arrival of the Japanese.

The great Embassy consisting of seventy persons has at length arrived from Japan and are located at Washington. The reception given the dignitaries of which it is composed, on landing from the vessel was extremely enthusiastic and imposing. We note that Mr. Ledyard of this city was appointed the commissioner to represent the State department, on the first reception, which was on Monday. The embassy landed at the Navy Yaw, and an immense cortege was formed which conveyed them to the residence which had been prepared for them. After being received by the President, they will probably visit the chief cities on the Atlantic sea-board, and it may be proceeded into the interior of the country by some of its numerous rivers and rail roads. Their personal appearance does not seem to be very impressive.

Congress.

On Monday the House decided to take up the Michigan contested election case, but did not come to any conclusion on that day; the day after was brought to an end by declaring Wm. A. Howard, the contestant, entitled to the seat. Very little business was done on Monday owing to excitement relative to the entrance of the Japanese embassy. Even Mr. Douglas, who was to make his great speech in reply to Mr. Davis, failed to keep the members in their places, and did not speak until Tuesday. This speech is the great event of the week, and was replied to sharply by Mr. Davis on Wednesday and Thursday. This debate and discussion will be felt in the reopening of the Charleston convention.

Literary Notes and News.

The Edinburgh Review, for April, being the second number for the present year of this standard reprint, which Messrs. Scott & Co., of New York, publishes in such handsome style at low rates, has reached us. The leading article is a very important one, being in the commercial relations which exist between England and France. This subject at the present time possesses an extraordinary interest from the change and modification which has been so lately made by both governments relative to their several productions both manufactured and raw material. The "Youth of Melton," the "Expense of Public Education in England," "English Local Nomenclature," "The Shakespearean Forgeries" are articles that claim the attention of the Literature, whilst DeBroglies' Church and Roman Empire, Civil Correspondence of the Duke of Wellington, France, Savoy and Switzerland, are articles that claim the attention of those who possess historical or political tastes. There is also a most able review of Darwin's book on the origin of species. This work has made more hubbub amongst the savans, than any that has appeared for a long time. We need not commend these reprints of Messrs. Scott & Co. We have so often claimed that they were the cheapest and most valuable publications issued, that we do not well see how any one that claims to keep himself advised relative to the leading opinions prevalent in Europe and the civilized world can do without them, at their very light tax on the pocket. No Eclectic or other miscellaneous selection can supply the place of one or two of these reviews with Blackwood to keep its healthy monthly visits, between the coming of the heavier and more solid reviews. The present is a favorable time to commence the volume for the year.

The Patent Office Report for the year 1858 is received from the office at Washington. This volume seems to us after a cursory examination to contain a very fair arrangement of statistics, and a condensed collection of the proceedings of the agricultural and horticultural societies of the several States. The papers on improvement of land, are of little consequence. That on the analysis of the tobacco plant, and tobacco soils seems rather the most complete. Coffee, arrow root, orange trees, California wine culture, Zante currants, and in general southern productions occupy the most of the volume. The very able treatise of Professor Henry on meteorology is the redeeming feature of the volume. For the sake of this, we can afford to put up with a good deal of trash, which

seems to have got infused into the book. With all the advantages of the patent office, and those afforded by the general government, with ample aid, we do not see why a volume much more creditable should not appear annually. As for the illustrations, they are beneath criticism.

Foreign Events.

The late arrivals bring no news of any importance from England.

Of France it is reported that the Emperor has offered Switzerland fifty millions of francs, or ten millions of dollars to settle her claim on the Savoy provinces. A conspiracy to assassinate the Emperor seems to have been detected. The conspirators had determined to seize the opportunities given by his presence at a ball. The particulars of this attempt are as yet unknown.

The affairs of Naples and Austria seem to be getting more complicated. The insurrection in Sicily does not seem to be put down, except on the bulletin boards of the government. Garibaldi has taken a ship thither with two hundred volunteers, with the design of aiding the revolutionary movement. It is difficult to get any correct intelligence from Sicily, as the government expressly forbids all communication with the island and publishes nothing itself. It is supposed, however, that large bodies of armed men are in the interior, in the vicinity of Palermo and Messina; whilst the cities are occupied by the King's troops, who commit all sorts of excesses and treat the inhabitants with the utmost cruelty. The insurrection broke out on the 4th of April, and had continued up to the 28th without being finished, so that it is not so trifling an affair as the Neapolitan authorities would have us believe.

In Austria, the defalcations and suicide of Baron Brunn, the late Minister of Finance, has cast a most gloomy and forbidding aspect upon the affairs of that country, and created a terrible distrust, which is felt everywhere. The investigations into financial matters and the conduct of those who have been intrusted with them are still going forward, and arrests are frequent. No movement has yet been made either for the benefit or the freedom of Hungary, though the feeling in that country is repressed with difficulty, by those who are most cool and wary.

The treaty between Spain and Morocco has been settled, and the two countries are now at peace for a time. The Queen of Spain has granted an amnesty to those who were engaged in the late Carlist movement.

In Mexico, a battle of some importance is reported to have taken place near San Louis Potosi, between the liberals and the constitutionalists, in which the latter suffered a severe defeat. Eighteen pieces of artillery and 1,000 prisoners belonging to Miramon were taken. Plans were to be adopted for an attack upon the capital.

Political Notes of the Week.

The State, the railroads and the city have been kept in a full quiver of excitement by the arrival of the delegates that have been swarming over them to the grand centre of operations at Chicago. Governors of States and distinguished men of every degree, from Governor Morgan to Tom Hyer, have been attracting the attention of the curious, and as for the real ingrained Republicans, they feel so "chuck full" of patriotism and glory, that it must have vent in powder and huzzas. So they go it, very strong!

Meanwhile Michigan is safe, though not represented at Baltimore; a few of the faithful met, subscribed, and fired off quite a handsome salute in honor of the nominations of Bell and Everett. The salute was quite unexpected, and everybody asked what it meant; but the guns sounded quite as well as they did the night before at the great democratic meeting, which met to say to the delegates that had returned home from Charleston, "Well done, good faithful servants!" At the present moment every body is speculating in Chicago, and some even venture to offer bets that Mr. Douglas will receive fifty votes there, by way of a compliment. This is mere guess work. We think that it is most likely that Mr. Seward and Mr. Blair of Missouri, or possibly, Mr. Trumbull of Illinois will receive the nomination for president and vice president, and that the whole affair will be settled by Friday night. We write this on Wednesday.

On Tuesday Chicago was crowded with delegates, and by Tuesday night the city was full. The general impression there was that Mr. Seward would be nominated, and that Senator Trumbull of Illinois would be pressed as the candidate for vice president. The editor of the N. Y. Tribune is a delegate to represent California, and to favor the nomination of Mr. Bates, and is pressing the matter with all his energy.

On Wednesday the Chicago Convention was organized by the appointment of David Wilmont, of the famous proviso, temporary chairman. Afterwards, Mr. Ashmun of Massachusetts was made president. The convention was organized by the appointment of a committee of one from each State and Territory. On this committee, W. W. Murphy of Jonesville represented Michigan. One vice president from each State was appointed and one secretary. Thomas W. Ferry, of Ottawa, was vice president for Michigan, and Wm. L. Stoughton, secretary. Austin Blair of Jackson was member of the committee on resolutions, which will probably be very similar in the main points to those adopted at Philadelphia in 1856.

The Chicago convention, after some discussion, adopted the platform for the campaign, taking for its prelude the preamble to the Declaration of Independence. This was the work of Thursday. On Friday, they were to ballot, with the chances increasing in favor of Seward's nomination.

The great wigwag erected by the people of Chicago was dedicated last Saturday night to the service of the campaign. Who that took part in the campaign of 1840, will not recall the mighty whoop that went over the land just twenty years ago for "Tippecanoe and Tyler too;" and the terrible libations of hard cider that were poured out in dedications of wondrous log cabins.

Meetings have been held in some of the cities of the southern States sustaining the seceders from the Charleston convention. Still we doubt much

that the feeling in their favor is a general one. Very little can be said as to what will be the programme at the convention to be held in Baltimore. It is very probable however that Mr. Douglas will be nominated.

The Covode committee seems to have no end to business, opening on its bands, and the very amusing part of the performance is that every shaft which they open by way of exploration, seems to terminate in Windell. The more the Covode company prospees, and the more they uncover rich veins, the more omnipresent seems Wendell. His diggings extend all over, until one begins to imagine that he has got hold of the deposits that General Jackson tried to keep away from the light fingered gentry. The great question is, what members of congress did he buy at the passage of the Lecompton bill?

A defalcation in the New York Post Office has again been found that is said to amount to \$155,000. This is something worth while. The defaulter probably thought it was not worth while to bite off only half of a plum, when he was wide enough in the gullet to swallow it whole. Orders have been issued for the arrest of Mr. Fowler the post master, who cannot now be found. Instructions from Washington have been given for a special agent to take charge of the post office, and so far as we can learn there is a general Swartwouting scrape to be disclosed. Some parties claim that the trouble has arisen from the Charleston caldron boiling over, and that the missing amount has been minus since 1856.

The passage of the tariff bill by the House of Representatives, seems to be received with much satisfaction in some places. It has yet to pass the ordeal of the Senate and the President.

The Hon. John Bell made a short speech to the people of Philadelphia on Friday last, in response to his nomination.

From the Pacific.

The Pony Express arrived at St. Joseph, Missouri, on the 14th, with dates to the 5th of May, making a nine days trip.

The crops in California have been badly damaged by storms of rain and hail.

The Legislature has adjourned, and the Governor has vetoed several important bills, much to the satisfaction of the people, however. Amongst these are the Bulkhead scheme and the wagon road appropriations.

News is received that 20 camels, from Siberia, Russia, will be employed at San Francisco about midsummer, and be used instead of mules for mountain express and freight business between California and Salt Lake.

An apparently well founded rumor prevailed that the Rothschilds have sent out an agent from London to examine the Washoe silver mines.

The Ophir Company, owning a part of the original Comstock silver lead at Washoe, have organized with a capital stock of \$7,000,000. Capt. Dall has been elected superintendent of operations at the mine, and has just returned from there. He reports that the mine can be made to yield one million and a half per month this summer.

The Placerville and St. Joseph telegraph line is being extended eastward, and its superintendent states will be in working order forty-five miles east of Carson City during the present month.

Oregon and British Columbia dates are to the 28th from the former and the 30th from the latter.

The political campaign of Oregon opened at Portland on the 28th by a mass meeting of the democracy, which was addressed by Geo. R. Shiel, candidate for Congress. The republicans have again nominated David Legen for Congress. He and Col. E. L. Baker are canvassing the State, the latter aspiring to be one of the U. S. Senators to be elected in August. The republicans are making great efforts to secure two U. S. Senators, which they regard as possible on account of divisions in the democratic party.

General News.

The great Eastern is getting ready with all dispatch and her first trip will be made to New York.

The Ohio Farmer reports most favorably as to the fruit prospects near Cleveland and vicinity.

An excessive drouth is reported in Kansas, and farmers are said to be suffering severely.

The Pennsylvania railroad was recently interrupted by a grand land slide. No accidents occurred, and the earth has been cleared away.

The trains run on the Michigan Central and Michigan Southern Roads made the time between Buffalo and Chicago in fifteen hours and fifteen and a half hours. This rate of going was equal to 40 miles an hour.

The Ogdensburg Journal reports the death of a woman at Heuvelth, named Susan Wadsworth, who was one hundred and twenty-five years old. She remembered the fall of Fort William Henry in 1757.

The catholics have just dedicated with imposing ceremonies a church at Albany, N. Y., that is considered one of the most magnificent edifices in the United States.

The Detroit Free Press has moved from the quarters it has occupied for a long series of years, and taken up its position on the corner of Griswold and Woodbridge streets.

In the first of the trial matches between Ethan Allen and Geo. M. Patchen, the latter won in three straight heats, the match being best three mile heats out of five. Patchen won by a length in 2:25, 2:24, 2:20. The next trial comes off on Wednesday next, two miles and repeat.

An officer of the United States army, who has traveled, thus expresses his opinion of Arizona:

"We have just traveled over the much talked of Territory of Arizona. Such another God-forsaken, untimbered, unwatered and unfinished country never before fell under my vision, and my optics have run over a good deal of what is called bad country."

The excitement in England relative to the prize fight continues as warm as ever; but the correspondents of the press generally affirm that there will be no more fighting, the government having given notice that they will take the matter in hand. The fact is that Young Jonathan was rather too much for Old John, who only saved himself from defeat by the rule of the referee, and the whole country is now determined that its favorite pugilist shall not be put to the test, and consider that the honor of the country is safe whilst the battle is considered drawn. At any rate, the friends of good order will be gratified to learn that no more such exhibitions are to be tolerated.

A diver has been visiting the wreck of the Hungaria, and reports as though the vessel had been almost instantly destroyed. On going into the interior he says, "The scene that presented itself was appalling in the extreme; for, although there were no corpses in the interior of the ship, there were nearly twenty bodies discovered entangled in the wreck alongside and in the gullies close by. These frightful remnants of poor humanity exhibited all the stages of dismemberment, arms, heads, arms, legs, &c., and all more or less in a state of decomposition. Those seen appear to have been up and dressed, or partly so, as some of them were evidently in the act of putting on their shoes, stockings, or other clothing, when the king of terrors put a stop to their toilet forever."

ST. CHARLES HOTEL,

Corner of Wood and Third Streets,
PITTSBURGH, PA.

HARRY SHIRLS, - PROPRIETOR.

HARBISON'S
IMPROVED MOVABLE COMB
BEE HIVE.

PATENTED JANUARY 4, 1859.

SOME of the advantages which this hive possesses over other hives now offered to the public are:

1st. The shape and size; being fifteen inches square on the outside, by thirty inches high; conforming to the natural habits and requirements of the bee, and economizing the animal heat of the colony better than any other shaped hive; its symmetrical shape presenting a pleasing and ornamental appearance in the Apiary, as well as being easily and cheaply constructed.

2d. The convenient and very efficient mode of ventilating the hive through the graduated chamber, supplying a sufficient amount of air and excluding the light.

3d. The ease with which all dirt that accumulates in the hive, or on the bottom board can be cleaned out; and much or worms that may infest the colony may be dislodged and destroyed.

4th. The ease with which access can be had to the interior of the hive, by the peculiar manner in which the door and lid is arranged; giving free access to every part of the hive; and when closed it is free from water running into and standing in the joints, as in the case where a cap is set in a rabbit or groove.

5th. The great improvement on frames; combining the movable comb principle with the adjustable, or so constructing the frames as to suit the condition of the colony, and transferring from common hives, by moving the adjustable bar up or down.

6th. The very convenient method of adjusting the frame to secure the proper space between the combs at all times, and fixing them in a perpendicular position and retaining them firmly and immovably in their proper place; and yet being easily removed when desired.

7th. The general construction of the hive is such as to permit the removal of any or all the combs of a hive with ease and dispatch, thereby enabling the apiarian to increase his stock of bees by division or artificial swarms at pleasure; he can also supply queenless colonies with embryo queens, or combs which contain new laid eggs or young larva, from which they will rear queens. It also affords ample facilities to examine the condition of each at any period of the year, and when necessary equalize the stores of honey and pollen, by taking combs from those having plenty and exchanging with those having but a limited supply, thereby ensuring the success of all the stocks in the Apiary.

8th. The honey board is so arranged as to prevent the queen ascending to the spare honey receptacles, where she frequently deposits eggs in combs that should be filled only with a pure article of honey. Queen frequently ascend when openings are left above the principal breeding department, and are often lost in removing the boxes of honey, thereby endangering the prosperity of the entire colony. It permits all necessary operations to be performed without injury to or killing the bees; it gives the power of inspecting or examining the condition of your bees at any time, by raising up your combs; it is easily taken out if the worm is in the comb—if so, it is easily taken out; it enables the apiarian to multiply his stocks as fast as it is profitable, without difficulty.

There are many advantages in the hive too numerous to mention. Try it for yourself; it will satisfy all good bee men, if not prejudiced. Give it a fair trial.—I will transfer bees from the old hive into this, and give satisfaction or no pay. My hives I pay one dollar for making; everything found, timber dressed by machinery; the first cost don't vary far from \$2.00, well finished. County and township rights will be sold at a reasonable price. Address A. F. MOON, Paw Paw, Mich.

H. C. GILBERT'S NURSERIES,

Coldwater, Mich.

THE UNDERSIGNED would call the attention of dealers and growers to his large and choice stock of Fruit and Ornamental Trees, all of which will be ready

For the Fall Trade of 1860.

My assortment contains the following staple articles, all of which will be warranted far superior to Eastern grown trees for Western cultivation: viz:

100,000 grafted Apple trees, 3 and 4 years old.
800,000 do do do 2 years old.
400,000 do do do 1 " "
20,000 Peach trees, all choice varieties.

Also,
Dwarf and Standard Pears, Plums, Cherries, Quinces, Grapes, Lawton Blackberries, Raspberries, Gooseberries, Strawberries and other fruits of the leading and most approved varieties.

For Nurserymen
I have several hundred thousand Apple seedlings, 1 and 2 years old; also, choice Ornamental Trees and Flowering Shrubs.

Dealers and Fruit Growers
Are respectfully invited to look through my stock before closing contracts for next fall and spring. I have several neighbors who are embarking largely in the nursery business, and we are all entirely agreed in one thing, and that is to make Coldwater a point that cannot be safely overlooked by any man who wants Fruit and Ornamental trees.

Come and See us,
and we will engage that you shall be suited in the quality, quantity and terms of sale.

Wanted Immediately,
Local Agents at all prominent points in this and western States. Also,
20 or 30 Live Men,
as Traveling Agents, to all of whom liberal commissions will be paid.
18 6m
H. C. GILBERT, Proprietor.

TREES, SHRUBS AND PLANTS.

WM. ADAIR invites the attention of Planters to his stock of trees, &c., which is unusually fine the present season, viz:

Apples, Pears and Cherries, both Standard and Dwarf; Plums, Peaches, Apricots, Grapes, Raspberries, Strawberries, &c., in great variety.

New Rochelle Blackberry (Lawton), 1¢ per doz., \$6 per 100, strong bearing plants.
Wilson's Albany Strawberry, Hooker's Seedling, Jenny Lind, McAvoy's Superior, Longworth's Prolific, and many others, at reduced rates.

Seeds of true Hubbard Squash, 40 seeds for 12 cents in stamps.
Raspberries—Brinkley's Orange, Allen's, Fastolf, Antwerp, Belle de Fontenay, and others.

Currants—all the best, both old and new—Cherry, Red and White Dutch, White and Red Grape, Yersallais, Glorie des Sablons, &c.

Grape Vines—Isabella's, Catawba, Concord, Delaware, Rebecca, Hartford, Prolific, Union Village, Logan, Canadian Chief, Marion, Diana, Anna, &c., together with a very large stock of Foreign vines for cultivation under glass.

Ornamental Trees and Shrubs, in great variety.—Particular attention is called to our extensive collection of Roses, Dahlias and Verbenas, embracing the best in cultivation.

In addition to the large stock on hand, nine cases have just been received from France per Steamer Australian, with many of the novelties of Europe.
14 5w
WM. ADAIR, Detroit, Mich.

Reaping and Mowing Machines.

JOHN REILLY,.....WM. N. ELLIOTT.

REILLY & ELLIOTT,

MANUFACTURERS OF

REILLY'S BADGER STATE

Reaping & Mowing Machine.

JOHN REILLY, PATENTEE.

They also manufacture

Steam Engines, Mill Gearing, Flows, and

all kinds of Castings.

WHITE PIGEON, MICHIGAN.

THIS REAPER AND MOWER took the First Premium at the United States Fair in Chicago last fall; also at the Wisconsin State Fair in Milwaukee.

White Pigeon, St. Joseph co., Mich.,
April 9, 1860, 15-6m

The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

THE WIDOWER'S STORY.

BY SLOW JAMIE.

It was a cloudless Sabbath morn,
A pleasant morn in May,
When birds rejoice 'mong leafy boughs
And chant their sweetest lay;
My wife and I went strolling out
Amidst the forest fair,
With joyful nature to rejoice,
And breathe the fragrant air.
Eight months ago, a new made bride,
She had dared with me to roam
Mid Pennsylvania's wood-crowned heights,
To seek a future home.
No church had we to crown the week,
Our neighbors far and few,
But I was joyous in her love,
And she was happy too.
This morning we had read the Word,
Together prayed and praised,
And now we walked abroad, our thoughts
In glad devotion raised.
The startled partridge warned her young;
How quick they hid from sight!
The spotted fawn, before our feet,
Sprung up, and fled in fright.
My heart was bounding like the fawn,
With joy instead of fear,
For love and beauty, joy and peace,
Were reigning far and near.
A serpent glided from the rock,
And drew my wondering gaze,
A flash of light burst on my sight,
With variegated blaze.
The white, the green, the blue, the pale,
In rapid circles flew;
While all was dark beyond the ring
Which close and closer drew.
My wife came hastening to the spot,
And broke the dangerous charm;
But fearful was the sacrifice
Which rescued her from harm.
The reptile, baffled of his prey,
Attacked her in his heat.
A moment more, his bones were crushed,
And mangled 'neath my feet.
But ah! the deadly venom now
Had reached the punctured wound;
The painful inflammation rose
And quickly spread around.
I bore her to our humble cot,
I watched her all the day,
But as the sun sunk in the west,
She also sank away.
She still suppressed the writhing groan
Which burning pain would start,
But, ah! this strife to save me pain
Cut deeper in my heart.
I could not bear that stranger eyes
Should see her beauty marred,
Those cherry lips turned livid blue,
Those cheeks with poison charred.
I dug a grave within a bower
Where oft she went to pray;
Alone I sung her favorite Psalm,
And laid her in the clay.
Well! forty years are passed and gone,
And I am old and gray;
Yet never can I once forget
That fearful, fearful day.
It chills me in my gayest laugh,
It breaks my sweetest rest,
It presses like an iron weight
Upon my laboring breast.
But still there's joy in love bereaved,
There's even joy in grief;
Nor would I have these scenes forgot
To send me calm relief.

The Editorial Excursion.

OVER THE ALLEGANIES.

A new and beautiful train of cars was provided for the occasion of the excursion over the mountains. There were two large locomotives decorated with flags and mottoes and garlands of flowers. One drew the train, and the other ran before it as a sort of herald and to make sure that the track was safe. It was a grand sight to watch them far ahead of us sweeping around the corners in the pride of their resistless strength with their bright flags fluttering in the mountain breeze. The road winds about like endless repetitions of the letter S, around the jutting shoulders of the mountains, through deep ravines and fearful chasms nearly the whole route, and we scarcely passed a mile without a fine view of both locomotives, the one flying on far in advance, like an *avant courier*, the other following on in stately majesty as if fully conscious of the value of the living freight committed into its charge. And I dare say it was.

Our company numbered somewhere near four hundred, I believe, full one-half of whom were ladies. They included editors from nearly, perhaps, all the western States, and some from the Southern. I think there were more from Ohio than for any other single State. From Michigan there were only five—S. Lewis, Esq., of the *Marshall Statesman*, Mr. Woolnough, of Battle Creek, Mr. and Mrs. Hascall, of Kalamazoo, and myself. Among the pleasantest acquaintances our little party made were the editors and their ladies from Illinois, Mr. and Mrs. Croly, of Rockford, Mr. and Mrs. Pickett, of Rock Island, Mr. Faxon and lady, of Galesburg, and and one or two each from the States of Iowa, Wisconsin, Missouri and Ohio. Many others might have been made had we been traveling

any ordinary route, but among such scenes of wild magnificence and fearful grandeur as those we passed, every thought and feeling and almost every moment of time was absorbed in wonder and amazement, not only at the boldness of the mountain views, but at the daring of the man who could think of circumventing those frowning heights and spanning those frightful chasms with a highway so smooth and safe as that over which we rode. I cannot attempt a description of the sublime and lovely grandeur of the scenes among those mountain peaks and precipices. Words are lost in the deep emotions excited by remembrance of that wild and startling panoramic view of overhanging cliffs, and of deep-down gorges whose gloom is broken here and there by the foam and rippling silver of the mountain streams dwindled to very threads as they wind among the roots of forest trees whose tallest tops can never reach the level of the airy pathway of the iron steed. I will only try to point out a few of the interesting incidents of this memorable excursion.

And first of all let me pay my tribute of grateful acknowledgements to the noble and generous man whose guests we were, Wm. P. Smith, Master of Transportation, and to our kind and attentive Conductor, both of whom were untiring in their efforts to promote the pleasure of all under their care. At many points of interest the train was stopped, and time given the passengers to get out and enjoy an unlimited view of the wild scenery, or admire the triumphs of science in overcoming the obstacles these mountain barriers had in terposed to its onward march. At such times both Mr. Smith and the Conductor seemed almost to be endowed with ubiquity. They were everywhere among the crowd, pointing out whatever of interest was to be seen, and directing our bewildered eyes to a thousand things which might otherwise have passed unnoticed. Nor was this all; before reaching the dining stations each day, free tickets for dinner were distributed, and sumptuous entertainments prepared for our enjoyment. At Cumberland, also, where we all spent the night of Friday, the 4th, our supper, lodging and breakfast were all provided for, and from the beginning to the end of the route, that is, from Wheeling to Baltimore, we had not a want unsatisfied or a bill to pay. Could any one imagine a more noble generosity or a more magnificent hospitality than this?

The first place of interest at which we stopped was to see and shake hands with John Church and his wife, the centenarians of Tygart's valley. The old man is one hundred and nine years of age, and his wife nearly as old. Mr. Smith introduced our whole company to the aged pair, who, together with their daughter, whom he designated as a "sprightly blooming girl of eighty," were seated on a low bench under the porch in front of the little log house which has been their home for more than eighty years. I shook hands with all three of them, and so I think did all who were there. It was an affecting scene. The old man rose up, stepped forward leaning on his cane, and tried to speak, but at that moment a little child was held up above the dense crowds of heads to kiss him. It was too much; words would not come. He put his arms around the little one, pressed its soft cheek and lips to his own, so old and wrinkled, and then dropped his feeble hands to be grasped and pressed in silence by the eager throng around him. The wife and daughter did not rise, but sat there with smiles on their withered faces and tears in their eyes, looking as though they hardly knew whether to laugh or to cry. Mr. Smith gave us a brief history of the old couple. Mr. Church is an Englishman by birth; he was in General Braddock's army, but deserted and fled to these then remote mountain fastnesses, where he has lived ever since. The place looks wild and lonely enough now, for though the waves of civilization have swept far around and beyond him, none have ever invaded his quiet retreat. There are a few acres of cultivated ground around the little log cabin, a pretty little brooklet runs down the shallow ravine in front of it, and that is all, except when the iron horse comes thundering past, startling with his roar and scream the silence of the surrounding hills.

A Family.—At the wedding celebration of Mr. Joseph Kissam, in Jersey City, on Tuesday of last week, there were assembled of his family two grandfathers, two grandmothers, ten mothers, nine fathers, ten uncles, fifteen aunts, seventeen sons, twenty daughters, twenty-nine grand children, one great grandchild, nine children-in-law, one grandchild-in-law, twenty brothers, twenty-three sisters, and twenty-eight cousins.

De Quincy being asked why there were more women than men, replied: "It is in conformity with the arrangement of nature; we always see more of heaven than earth."

A Milkmaid's Fortune.

It might be a curious question, worth asking and ascertaining, of persons whose names are famous in history or prominent among the heroic traditions of war, how large is the proportion of those who have greatness thrust upon them, compared to individuals who, by the virtues of true courage, perseverance, boldness and sagacity, have achieved it for themselves.

It is at all events one that rises to the mind after hearing the story of Johanna Stegin, a fortunate milkmaid of Luneburg, who, by no particular effort of her own, save a forced compliance, rose to fame, ultimate elevation in rank, and extreme prosperity.

In 1813, the French, greatly to the disgust of the conquered, still occupied Luneburg. A time however was at hand when the power that deemed itself all but omnipotent, was to totter, and presently fall down amid the well-earned execrations of all Europe.

But it is the story of the fortunate milkmaid which is the object of this paper, not the progress and determination of the first Napoleon's wars.

On the outskirts of Luneburg there stood then, and very possibly still remains, a settlement of milk farm-houses. The inhabitants of this village, which is called Grimm, carried on a brisk trade by supplying the lacteal fluid in large quantities in Luneburg, which city depended mainly on these farms for that important article of diet. Our heroine, Johanna, was employed in one of these rural dairies, and was in short, just a milkmaid and nothing more. Truth compels her biographer to state that there was little enough of the picturesque in our Johanna's personal appearance, and that she had even more than the usual heroic attributes of robust health and florid bloom, charms accompanied moreover by locks whose redness was a fact above all contradiction.

But Fate, the mighty, can overcome all; and, for anything we know, could make even an empress, of a short, stout, red-headed dairy woman.

Little indeed Johanna dreamed when—her milk pails slung from her square shoulders—she issued forth one morning, the exact date of which the present biographer fairly owns to have been unable to ascertain; little did she dream or think—supposing she was ever in the habit of thinking, to which practice, luckily for their health and vigor, milkmaids are not prone—that fortune was slyly, in no far off nook, to invest her with all that the heart of woman is said to desire—homage, wealth, and fame.

By Johanna's side on that memorable morning, came forth at the same time, similarly laden, a being, gentler and fairer, though in all likelihood no better nurtured or cultivated than her companion. This young person was an assistant dairy-maid, and in this narrative, with the courteous reader's leave, shall be called "Caroline."

These girls were bound on their usual errand, taking to Luneburg supplies of rich creamy fluid. They chatted and sung and laughed on their road from Grimm to Luneburg, a distance of probably not more than a mile and a half. Suddenly as they were nearing the city, Johanna halted.

"What dost thou stare at?" says Caroline, in her guttural German. "I see nothing."—(*Ich sehe nichts*.)

"Canst bear, neither, perhaps," answered Johanna, raising her hand and pointing.

And now, indeed, Caroline heard sharp and loud reports, which gave her an idea expressed curtly enough.

"Fighting, eh?" quoth Caroline.

"Come on," answered Johanna; "the milk must go to Luneburg if Boney himself be there! We're late enough now, I tell you."

For Caroline showed symptoms of turning back towards Grimm, a tendency toward cowardism which plainly proves her to have had no pretensions to be a heroine, and which ought to reconcile us to her ultimate fate.—"Come on, I tell you fool! they won't hurt us!"

"No; but the bullets may. Hark! there they go—pop! pop! Johanna, never mind the milk—let the people want their breakfast for once."

But, arguing thus, they still walked on; and, as it proved, marched right into the lion's mouth. When it was too late, even for women as they were, to retreat, they found themselves right in the midst of Prussian and Russian soldiers, who, up to that moment, had poured their fire against Luneburg. There was, however, just then, a momentary forced cessation of hostilities on the side of the assaulting party, and, in fact, the French were rapidly gaining the advantage. An accident had occurred. Close before Johanna and Caroline, a cart laden with cartridges had been

overturned, and its contents were strewed on the ground. No one was near it save a dead trooper or two, and one who was just expiring. Caroline, tender and thoughtful woman, ran up to the wretch, and held a draught of milk to his dying lips, but Johanna clasped her hands, crying out—

"Rouleaux! rouleaux! Come quick, and help me, Caroline!"

She took the cartridges for rouleaux of coin, which they somewhat resemble. Johanna and her companion both wore large white aprons with big pockets, not like those of grisettes on the stage, but good substantial ones, fit to hold a half quarter loaf. Johanna filled these as quickly as she could pick her spoil up, quite oblivious of the bullets from Luneburg, which hailed round her—as oblivious of them, in her thirst for getting quickly rich, as was Caroline from a better, holier motive. In after times I think the look of gratitude which beamed from the dying soldier's eyes, the broken words of blessing which dropped from his white lips, must have been a dearer, more blessed memory to the heart of her, who, naturally timid, forgot that timidity under the influence of woman's honest promptings of tenderness and mercy, than the subsequent homage, the brilliant fortune showered on the being who, with eager eyes and avaricious grasp, was busily employed in cramming her pockets with that which indeed ultimately proved more valuable toward her aggrandisement than the gold for which she took the packages strewed around.

But Johanna's career of greedy acquirement is speedily stopped. A Prussian colonel rides hastily up. He has no idea of the girl's self-deception. He hastily dubs her in his mind—a mind heated by the excitement of action—as an ardent heroine aspiring to aid his troops in their temporary distress.

"My brave girl! those pockets will not hold enough; fill your apron. Quick, here, young woman!" (To Caroline, who still knelt by the dying,) "do the same—as one goes, the other can come back!"

There was no murmur of disobedience possible. Here was the terrible Prussian, flaming with loud voice, stern in command, indisputable in authority. Johanna was quite unconscious of the admiration with which the great man, whom she took for a general at least, viewed her. Fear alone made the girl obey; and indeed, as her retreat was by this time cut off by a body of advancing troops, to go back was impossible, to go forward inadvisable. Her acceptance of the duty imposed, was however, as prompt and ready as if the action had really emanated from herself. She was always sturdy and bustling, and not less so now, when bullets whistled around, and she was in mortal fear. Quickly she filled her apron, and as quickly ran with her burden to the poor fellows, who, for want of them, were being rapidly picked off by the French fire, man by man. As she returned, Caroline preformed the same good office; so, backward and forward, amid a rattling fire and volleys of no less fiery oaths, amidst blood, carnage, the groans of the dying, the carcasses of the dead, did Johanna Stegen and Caroline Burger carry pail after pail of the cartridges, distributing them to the troops, till the day advanced, and the allies had gained the victory—gained it, as all to a man declared, by the heroic conduct of a woman—that woman, Johanna Stegen.

Caroline, her pale face heated by the danger and stern excitement of the scene, equally arduous, equally—even more generously—oblivious of danger, is permitted, unnoticed, unthanked, to make her way back as best she can to Grimm, there to amaze the pastoral inhabitants with the recital of that adventurous and blood stained morning.

Our Johanna was not too much overpowered by bashfulness to remain on the field, waiting for applause and thanks. She had wit enough to see that she was appreciated beyond what she had merited. However, just then, every one was too busy with rejoicing and hopes of plunder to notice her, whom they considered the victress of the day.

As, weary and disappointed, she was about to return to Grimm, he who had directed the milk girl's efforts, rode up to her, hot, and ready to drop off his horse with fatigue.

"My girl—quick—your apron—give it to me. Not a word—off with it—that's right—now, your name—Johanna—Johanna what? Johanna Stegen. So! Now, my lady, onward! Stragglers, fall back!"

And thereupon, one of the stragglers, who could not comprehend what that grand, terrible, fierce soldier could want with her apron, now half dirty, stained with blood and the moisture of her heavy brow, fell back at the word of command, and presently, changing her mind about Grimm, she slowly followed

in the roar of the army, who acknowledged her as its preserver, and who, by this time, had hoisted her apron in front of the troops as an ensign and emblem of how great a victory had been won.

(Concluded next week.)

Home Hints.

BY A FARMER'S WIFE.

MRS. ADAMS.—I have for some time purposed to offer a few hints to farmer's wives on various subjects pertaining to our domestic economy; but in taking up my pen it is always with a consciousness of my inability, and with a conviction that there are many lady readers of the household that could wield a much a' ler one than mine upon any one of the subjects designed to be treated upon.—The scolding you gave Ned Hastings for poor spelling and punctuation fits closely upon me; but perhaps the inquiry arises in your mind, why set yourself up a public writer at all, if you are so well aware of your own mental deficiencies? I answer, simply because I like to speak and write of things that come within my own experience or observation; and I like equally well to know the experience of others in similar matters: but in every instance let my poor communications share the same fate of Ned's if they deserve it.

Should I be called upon to answer the question: What are the most important items in our domestic affairs? I would answer, the health and cheerfulness of the wife and mother; and yet it is a lamentable fact that there are but few that are either healthy or cheerful. Now may we not reasonably look for the cause in the constant in-door life that she generally leads? for is it not a fact that there are many that make themselves almost as much a cooking stove appendage as a boiler or teakettle.

Now, I believe it to be utterly impossible for any one to lead such a life without becoming fretful, nervous and irritable, and in fact, physically, mentally and socially sick.—And by out-door exercise I do not mean that kind merely that may be obtained by walking or riding alone, but from active, energetic labor.

I have often heard a farmer's wife say, I am not strong enough for out door labor; and and yet are doing all the in door work for a large family, though perhaps scarcely able to drag herself about. If you are not strong, so much more do you need out-door exercise. My word for it, the necessary strength will soon be acquired. I know from experience that out-door labor is not so fatiguing as in-door; yet I do not wish to be understood to recommend it as a constant employment, but every pleasant hour that can be begged, borrowed or stolen, should be thus employed.—And another says, "My husband does not provide me with sufficient help." Neither should he; if he is "lord of the soil," surely you should be lady of the soil; and if he has provided himself with help, he has done his duty and set you an example.

Perhaps some one will ask, "What kind of out-door labor do you consider appropriate for ladies?" I would answer to plant trees, cultivate vegetables and flowers, and to prune and bud and graft. While engaged in such pursuits you cannot help but be happy; and if there is an ache or ill about you, it is for the time being forgotten: for in studying nature in her wonderful and mysterious ways, the mind will be lead away from self, and perhaps away from the world into closest communion with nature's God. The tree planted by your own hand, as it towers heavenward, will not fail to elevate the thoughts and affections with it.

And aside from the health giving, soul inspiring effect that this kind of labor has upon yourself, there is a propriety in thus adorning your dwellings; who can tell the influence it may have upon a beloved child: for in the dullest minds I have ever come across, there is some appreciation of the grandeur and beauty of nature, and a tree, shrub or flower planted by a mother's hand, cannot fail to be an object of interest; and their refining, elevating influence will continue to be felt long after the hand that planted them has crumbled to dust.

For Our Young Friends.

Charade.
When in the sky dark clouds appear,
And vivid lightnings dash,
My first in fulminating tones we hear,
Like cannon's roar, when warring armies clash.
My second is a color bright,
And often of a reddish hue;
It may be dappled, dark or light,
But sometimes I am green or blue.
My whole is seen in Michigan,
Partially encompassed by land.

J. W. E., Plymouth.
Answers to Enigma, Charade, &c., of last week.—To Enigmatical Arrangement—No. 1. A TIN SKIMMER; No. 2. AN UMBRELLA; No. 3. A PITCH-FORK; No. 4. A HAND RAKE; No. 5. A SEWING-NEEDLE.
To Charade—CASSOWARY.

RECOMMENDATION TO FARMERS IN
SELECTING THE BEST MOWER AND
REAPER.

The committee on Agricultural Implements of the last New York State Fair, held at Albany, say to farmers:—
"We think the improvements put upon this machine (KIRBY'S AMERICAN HARVESTER) since the last State Fair, justify it to the award; ("THE MOST VALUABLE MACHINE OR IMPLEMENT FOR THE FARMER, EITHER NEWLY INVENTED OR AN IMPROVEMENT ON ANY NOW IN USE.") and the exceeding strength and great simplicity of the machine must commend it to the farming community."

GLADDING'S
HORSE PITCH FORK.

Manufactured by S. Bullock.
THIS VALUABLE improvement possesses many important advantages over all other Forks, among which are the following: The tines being allowed to drop to discharge its load, the tilting of the handle in other forks is avoided; hence, hay can be unloaded with the utmost facility and ease into shed windows or beneath purline beams, and other places where other horse forks cannot be used. It can in all cases be managed with greater ease than any other horse fork. It is equally adapted to stacking. With this fork a ton of day may be unloaded in from 5 to 7 minutes.

TESTIMONIALS.
Its simplicity, durability and perfect operation as well as comparatively trifling expense, recommends its use to the farmers of our country. A. B. DRICKSON.
Decidedly the best I am acquainted with. A. E. KAPP.

A valuable labor saving improvement.
J. E. KAPLAN, Genesee Seed Store.
It possesses several advantages over the horse fork commonly used.

The best machine for the purpose within our knowledge, and therefore commend it to the attention of all interested. It must prove a decided acquisition in the haying season, when both time and labor are money. D. D. T. MOORE.

It will prove a wonderful labor saving machine. I believe wherever tried it will be found profitable. JOHN JOHNSON, Geneva.

Unloading hay at the barn by horse power is such a simple operation that it seems wonderful how a sensible farmer can continue the exceedingly hard labor of lifting it a forkful at a time in the stifling heat of a July afternoon.—N. Y. Tribune.

The best apparatus for unloading hay we are acquainted with.—Genesee Farmer.

Gladding's Horse Pitch Fork is one of the labor saving machines which will pay to purchase.—Prairie Farmer.

Unloading in a barn by means of a Horse Pitch Fork is becoming quite common in some sections of our country, and will be practiced everywhere where it has been exhibited, including the State Fairs of Pennsylvania and New York for 1885, and New York, Illinois, Michigan and United States Fairs at Chicago for 1883, besides numerous County Fairs.

Fork, Rope and Pulleys \$12. State and County Rights for sale. Address
STEELE BULLOCK, AGENT,
Columbia X Roads, Bradford Co., Pa.

19-6w
**AMERICAN AND FOREIGN
STEREOSCOPIC EMPORIUM.**

E. ANTHONY,
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After May 1st, 1880, at 501 Broadway, two doors from the St. Nicholas Hotel.

THE Stereoscope is the most instructive, interesting, entertaining, amusing, and exciting of modern inventions.

None are too young, none too old, none too intelligent, none too uneducated, to acknowledge its worth and beauty.

No home is complete without it, and it must and will penetrate everywhere.

It presents to your view every part of the world, in all its relief, beauty, grandeur, and sharpness of detail, as if you were on the spot.

Photographers are everywhere exploring Europe, Asia, Africa, America, in search of the grand and the beautiful, and the results of their skill are constantly enriching our stock.

We have an immense variety of paper Views of Scenes in Paris, London, England, Scotland, Ireland, Wales, France, Belgium, Holland, Switzerland, Spain, The Rhine, Versailles, St. Cloud, Fontainebleau, Tulleries, Italy, Turkey, Egypt, Athens, the Holy Land, China, India, Crystal Palace, also Groups Historical, amusing, marriage scenes, breakfast scenes, picnics, statuary, &c., &c. An exquisite assortment of illuminated Interiors of Palaces, Churches, and Cathedrals of France, Italy, &c. The effect of these illuminated views is remarkable.

Every gentleman of wealth and refined taste should have in his drawing-room some of our exquisite views on glass, with a revolving stereoscope, showing 12, 20, 30, or 100 scenes. Nothing can be more fascinating, and one can offer no greater treat to a friend fond of the picturesque and beautiful.

Anthony's Instantaneous Stereoscopic Views are the latest Photographic wonder. They are taken in the fortieth part of a second, and everything no matter how rapidly it may be moving, is depicted as sharply and distinctly as if it had been perfectly at rest. This gives an additional value, for to the beauties of inanimate nature it adds the charm of life and motion. The process is a discovery of our own, and being unknown in Europe, we receive from London and Paris large orders for Anthony's Instantaneous views of American life and scenery.

Among other things we have just published Stereoscopic Illustrations of the scene of the FURIOUS STORM, PRAYER MEETING, in which many hearts feel an interest. The particulars of this will be found in our catalogue.

Our catalogue of subjects and prices will be forwarded to any address on receipt of a stamp.

Parties at a distance sending us \$3, \$5, \$10, \$15, \$20 or \$25 can have a good instrument and such pictures as they may request, sent by Express.

Views alone, (without instrument) can be sent by mail.

Parties who wish to be advised of everything really valuable in the line that comes out, may send us their names to place on record, and we will keep them posted at our own expense.

Men of leisure and Photography a most fascinating and delightful amusement. We are prepared to fit out amateurs with everything necessary for their success together with instructions "How to take Stereoscopic Pictures."

Importer and Manufacturer of Photographic Materials, Stereoscopes and Stereoscopic Views.

Merchants from every section of the country are invited to make an examination of our stock, as our discount to the trade will be liberal.

To Photographers.—First class stereoscopic Negatives wanted.

Sent by mail a print unmounted, with price of Negative.

[Cut this out for future reference.] 3-3m

DEALERS IN FRUIT TREES

WILL find at the subscribers a very large stock of trees and plants, suited to the fall trade—(500,000 3 year apple trees, with other stock to correspond).

Persons selling, or about to sell trees in the west, for full delivery, are invited to make us an early call. We are disposed to deal liberally with them, and furnish them with trees indigenous to the soil and climate of the west, saving them the exposures attendant on shipping from nurseries four or five hundred miles eastward. A few intelligent, industrious men can obtain agencies for sale of our stock.

A large trade has heretofore been done at this place, in trees trafficked for in the east, but this year our neighbors have also good stocks of their own growth. We have always raised our own trees offered for sale. Our premises are at the head of Broadway, 2 miles above the Oliver house. Address as below.

HALL & CO., Hickory Grove Nursery, Toledo, Ohio.

THE WETHERFIELD SEED SOWER

FOR SALE at
PENFIELD'S, 108 Woodward Avenue.

1860. SUMMER ARRANGEMENT. 1860.

MICHIGAN SOUTHERN

DETROIT, MONROE and TOLEDO

RAIL ROAD.

MONROE, CHICAGO, TOLEDO, CINCINNATI AND CLEVELAND LINE.

With its connections, forms a Through Route from Detroit to Monroe, Adrian, Chicago, Toledo, Sandusky, Cleveland, Dayton, Hamilton, Cincinnati, Pittsburgh, Wheeling, Harrisburg, Philadelphia, Baltimore, Washington, Erie, Dunkirk, Buffalo, Albany, New York, Montreal, Quebec, Portland, Rouze's Point, and all points interior, in Ohio, Pennsylvania, New York, and the New England States, and all points West and South West.

On and after Monday, April 9th, 1860, Passenger Trains will run as follows:

ARRANGEMENT OF TRAINS.
FROM DETROIT—Mail and Express, daily, except Sunday, at 7:30 A. M.; arriving in Toledo at 10:15 A. M., connecting with the Express Train from Toledo at 10:30 A. M. (via old road), arriving in Chicago at 8:15 A. M. Chicago and Cincinnati Express, daily, except Sundays, at 7:40 P. M., arriving in Toledo at 10:35 P. M., Adrian at 11:20 P. M., connecting with the Lightning Express Train for Chicago (via old road), arriving in Chicago at 8:00 A. M.

Toledo accommodation, daily except Sunday, at 12:15 P. M., arriving in Toledo at 4:00 P. M., connecting with Express train for Cleveland, Buffalo and New York.

FROM CHICAGO—Mail and Express, daily, except Sundays (via old road), at 6 A. M., and Lightning Express, daily, except Sundays, via Air Line, at 8:00 A. M., making connection with 4:05 P. M. train from Toledo at Air Line Junction, arriving in Detroit at 6:50 P. M.; Chicago and Montreal Express, daily except Saturday, at 8:00 P. M., via old road and Adrian, arriving at Detroit at 7:05 A. M.

FROM TOLEDO—Chicago and Montreal Express, daily except Sundays at 4:15 A. M., arriving in Detroit at 7:05 A. M.

Mail and Express, daily except Sundays, at 4:05 P. M., arriving at Detroit at 6:50 P. M.

Detroit Accommodation, daily except Sundays, at 11:00 A. M., arriving in Detroit at 8:00 P. M.

CONNECTIONS:
Trains from Detroit connect at Adrian with Michigan Southern Main Line for Chicago, with New Albany and Salem Railroad, at the crossing of that line, and at Chicago with all Roads for the Northwest and South.

Connect also at Adrian with Jackson Branch Trains for Jackson.

Connect at Toledo with Dayton and Michigan Road, for Dayton, Hamilton and Cincinnati; with the Cleveland and Toledo Road, for Sandusky, Cleveland, Pittsburgh, Dunkirk, Buffalo, Albany, Boston and New York; with Wabash Valley Road for Fort Wayne, and points Southwest, and with Air Line Road for Bryan, Kendallville, Ligonier and Goshen.

Trains from Chicago and Toledo connect at Detroit with Grand Trunk Railroad of Surin, Toronto, Prescott, Montreal, Quebec, Portland and Boston; with Great Western Railway for Niagara Falls, Buffalo, Albany, New York and Boston, also with Detroit and Milwaukee Railway, for Grand Rapids, Grand Haven and intermediate Stations.

Freight Trains leave daily, except Sunday, as follows: FOR TOLEDO, at 12:15 P. M., arriving at Toledo at 4:00 P. M.

FOR CHICAGO, at 4:00 P. M., arriving at Chicago at 8:05 P. M.

Trains are run by Chicago time, which is Twenty Minutes slower than Detroit time.

Woodruff's Patent Sleeping Cars accompany all night trains on this route.

Time and Fare the same as by any other Rail Road route.

No change of cars between Detroit and Chicago. Baggage checked through to all points East and West.

J. N. D. CAMPBELL,
General Agent, Detroit, Mich.

L. P. KNIGHT, Agent, Detroit, Mich.

CAHOON'S PATENT
BROADCAST SEED SOWER.

THE HAND MACHINE sows from four to eight acres per hour at a common walking gait, throwing out Wheat about forty feet wide and Grass Seed twenty feet.

THE HORSE POWER MACHINE at the usual walking gait of a horse sows from ten to fifteen acres per hour, throwing Wheat about sixty feet, and Grass Seed about eighty feet.

The vast superiority of this machine over all others, as shown in the perfectly regular and even distribution of the seed, and the wonderful rapidity with which the work is performed, combined with their perfect simplicity and durability, have them in the front ranks of labor saving agricultural implements.

A saving of three-fourths of the labor and one fourth of the seed used in hand sowing is effected by using these machines. A person entirely unused to sowing by hand, can use either machine with perfect ease. They are warranted to give perfect satisfaction and to save their cost in less time than any other farm implement yet introduced.

Large numbers of these machines have been sold, and in all instances, when proper care has been taken in their operation, they have given the most perfect satisfaction. These machines can be purchased of Agents in all the principal places in the State. For further particulars address

P. B. SANBORN,
General Agent for Michigan and Western Canada.
Office at B. & W. R. Noves' Hardware Store, 58 Woodward Avenue Detroit, Mich. 12-2m

THE WILLIS' STUMP PULVER

IS the most powerful and most economical machine in use for pulling stumps, and will clear a field in less time than any other invention of a like kind.

Twenty-three stumps pulled by this machine in an hour and fifteen minutes. The undersigned will sell machines and rights to use and manufacture in any part of Michigan except the counties of Hillsdale, Branch, Wayne, Washtenaw, Jackson, Calhoun, Kalamazoo, Van Buren, Macomb, Genesee, Shiawassee, Saginaw, Tuscola and St. Clair, which are already sold.

All necessary information as to prices, and mode of using, will be given on application to

DAVID BLACKMAR, Ypsilanti,
or to E. F. JOHNSTONE, Editor Michigan Farmer.
The Machines are manufactured at the Detroit Locomotive Works from the best Lake Superior Iron. [3]

THE PEOPLE'S MILL.

FOR SALE at PENFIELD'S AGRI. WAREHOUSE, at manufacturing prices, freight added; and can be seen running in this city, Detroit, Mich. 53 ft

Wilson's Albany Seedling Strawberry.

FOR SALE, Fifty Thousand, at five dollars per thousand, or three dollars for five hundred; packed in moss and delivered at the Express or R. R. freight office.

W. H. HAYS,
9-5w Bridgewater, Oneida Co., N. Y.

SUBSOIL AND JOINTER PLOWS,

Manufactured by
Burnham & Co., Battle Creek, Michigan.

Price of Subsoil Plow for one team, with draft rod, \$8.50.

Price of the Curtis Jointer, or double Plow, for one team, \$14.00. 13-2m

New Rochelle, Lawton, Blackberry.

FINE PLANTS, carefully packed and sent according to directions, at One Dollar per dozen. Five dozen for Four Dollars; ten dozen for Six Dollars. Direct to
10-4t CHARLES BETTS, Burr Oak, Mich.

IT IS NOT TOO MUCH TO SAY

SINCE ALL,

OLD AND YOUNG,

AFFIRM ITS TRUTH,

Viz: That Professor Wood's Hair Restorative Will preserve infallibly the growth and color of the hair, if used two or three times a week, to cover the bald spot. Perfectly restores the gray, cover the bald with nature's own ornament, the hair; make it more soft and beautiful than any oil, and preserve the scalp free from all diseases to the greatest age. Statesmen, Judges, Attorneys, Doctors, Clergymen, Professional men and Gentlemen and Ladies of all classes, all over the world, bear testimony that we do not say too much in its favor. Read the following and judge:

Hickory Grove, St. Charles Co., Mo., Nov. 10, 1857.
Prof. O. J. Wood—Dear Sir: Some time since we were induced to use some of your Hair Restorative, and its effects were so wonderful, we feel it our duty to you and the afflicted, to report it.

Our little son's head for some time had been perfectly covered with sores, and some called it scald head. The hair almost entirely came off in consequence, when a friend, seeing his sufferings, advised us to use your Restorative; we did so with little hope of success, but to our surprise, and that of all our friends, a very low complexion removed the disease entirely, and a new and luxuriant crop of hair soon started out, and we can now say that our boy has as healthy a scalp, and as luxuriant a crop of hair as any other child. We can, therefore, and do hereby, recommend your Restorative, as a perfect remedy for diseases of the scalp and hair. We are yours respectfully,

GEO. W. HIGGINBOTHAM,
SARAH A. HIGGINBOTHAM.

Prof. Wood—Dear Sir, My hair had, for several years, been becoming prematurely gray, accompanied by a harshness which rendered the use of oil necessary in dressing it. When I commenced using your Hair Restorative about two months ago it was in that condition; and having continued its use till within the last few weeks, it has turned to its natural color, and assumed a softness and growth greatly to be preferred to those produced by the application of oils or any other preparation I have ever used. I regard it as an indispensable article for every lady's toilet, whether to be used for the purpose of restoring the hair to its natural color, or for the simple purpose of dressing or beautifying the hair. You have permission to refer to me all who entertain any doubt of its performing all that is claimed for it.

MRS. C. SYMONDS,
114 Third St.,
Cincinnati, O., Feb. 10, 1857.

Wellington, Mo., Dec. 3, 1857.
Prof. Wood—Dear Sir: By the advice of a friend of mine, who had been using your Hair Restorative, I was induced to try it. I had the fever, some time last May, and nearly every hair in my head came out. Now my hair has come in a great deal thicker than ever it was. Nothing but a duty and sympathy that I feel to communicate to others who are afflicted as I have been, would induce me to give this public acknowledgment of the benefit I have received from Prof. Wood's Hair Restorative.

Yours respectfully,
A. R. JACOBI.

The Restorative is put up in bottles of 8 sizes, viz: large, medium, and small; the small holds 1/2 pint, and retails for one dollar per bottle; the medium holds at least twenty per cent. more in proportion than the small, and retails for two dollars per bottle; the large holds a quart, forty per cent. more in proportion, and retails for \$4.

O. J. WOOD & CO., Proprietors, 312 Broadway, New York, (in the great N. Y. Wire Railing Establishment), and 114 Market St., St. Louis, Mo.

Sold by all good Druggists and Fancy Goods Dealers. 16-3m

SUMMER COMPLAINTS.

Viz: Diarrhea and Cholera Morbus, and Flatulent and Spasmodic Colics.

WE, the undersigned, have for several years past sold

B. FOSGATE'S ANODYNE CORDIAL, and during this period have witnessed its salutary effect in curing the diseases for which it is recommended, viz: Acute and Chronic Diarrhea and Cholera Morbus,

in our own, and in the families of our customers, and have also seen its successful administration in cases of CHOLERA INFANTUM.

We do, therefore, confidently recommend it to all those who may be afflicted with those distressing and dangerous complaints, as offering one of the best means for their cure or relief.

W. BARRETT, Utes,
J. J. FOOT, Hamilton,
L. PARSONS, Westfield,
S. WHITE & SON, Fredonia, L. REDDY, Penn Yan,
P. C. CURTIS, Attica,
W. W. & SON, Batavia,
J. G. BARRETT, Leroy,
T. BEADLE, Elmira,
A. I. MATTHEWS, Buffalo,
L. B. SWAN, Rochester,
CARTER & BROS., Erie.

It is particularly useful in Cholera when Teething, as it allays irritation, induces moderate perspiration and produces sleep.

PRICE 25 CENTS. For sale by J. S. CUTBERT & CO., Detroit; FARRAND & SHIPLEY, Detroit; T. J. HINGHAM, Detroit; and by Druggists and Dealers generally.

C. N. TUTTLE, General Agent,
16-6m Auburn, N. Y.

NORTHVILLE FOUNDRY and Machine Shop.

IN the village of Northville, at the old stand of C. G. HARRINGTON, may be found a large stock of the

LATEST IMPROVED PLOWS, of every style and variety now offered in the Eastern or Western market. Plows which for durability and lightness of draught, are equalled by few and surpassed by none. The subscriber is also manufacturing

Cultivators, Drags, Sawing Machines, Iron Wares, and in fact almost everything that can be cast, carved or turned, necessary to meet the growing wants and improve the business of the farmer and husbandman. Having secured workmen of long experience and well established reputation to superintend every department of the business, he trusts his facilities for the manufacture of all the above mentioned works, also, for

REPAIRING most kinds of Machinery, are equalled by very few in the State.

Feeling thankful for the large and liberal patronage which he has heretofore enjoyed, he would here say, that he still hopes by untiring diligence and prompt attention to business, not only to retain all of his old friends, but to greatly enhance the number at the expiration of the present year.

C. G. HARRINGTON.
Northville, Mich., March 27, 1860. 14-8

EGYPTIAN CORN.

THE subscriber offers to farmers throughout the county THE EGYPTIAN CORN, which upon trial was found to ripen planned ever the first of July. It is estimated, from its very prolific qualities, to yield 200 bushels per acre, and weighs by sealed measure 56 pounds to the bush.

This Corn was produced from some procured direct from Mr. JONES, our Consul Agent, directly on his return from Egypt.

It needs no different culture from that of other varieties, and in the South two crops can be raised on one season on the same ground. It grows in the form of a tree, and twenty-two ears have grown upon one stalk, and will average from five to fifteen. For domestic use it is unparalleled. When ground and properly boiled, it is equal in color and taste to wheat flour. It is a fine crop, by sowing in drills or broadcast, for early feed, there is no kind of corn so well adapted to milk cows, and note that will yield half the value in stalks or corn.

It can be successfully grown in any State of the Union from Maine to Texas. I can give the most satisfactory references that the corn is, in every respect, what I represent it to be, and further, I am the only person throughout the country who has this variety of corn—Having secured, in quantity, I am now able to fill all orders, for those desirous of testing it.

To any person who will enclose in a letter, One Dollar, in Stamps or Currency, directed to me, I will send, postage paid, sufficient corn to produce enough to plant, the following year, from twenty to thirty acres. Also, directions for planting and cultivation.

Any person who will get up a club of five, will receive a package gratis.

Give your full name, post office, county, and State with date, and no errors will occur.

Address M. E. CRANDALL,
14-8t Sandwich, DeKalb Co., Illinois.

SECRET ART OF CATCHING FISH, in any water, as fast as you can pull them out, sent for 25 cts. This is no humbug. Address

P. M. ANGUS,
16-10t Flushing, Genesee Co., Mich.

THE BEST MACHINE

IN THE WORLD.

KIRBY'S AMERICAN HARVESTER!

The Most Valuable Implement for the Farmer.

"Contains the most valuable Improvement of any Harvester in Use."

WE have the pleasure of offering Farmers the Improved Kirby's American Harvester for 1860, which stands unrivalled for facility of operation, lightness of draft, adaptation to uneven surfaces, strength, simplicity and durability; and is pronounced by all who have tested the various machines in use, to be the most complete combined Reaper and Mower "either newly invented, or an improvement on any now in use."

First Premiums at State Fairs and Trials as the

BEST REAPER AND MOWER COMBINED.

At the last New York State Fair, it was the only Harvester that received a Premium among some forty machines on exhibition. The Judges awarded it a Silver Medal and Diploma, as "The most valuable Machine or Implement for the Farmer, either newly invented or an improvement on any now in use." They say in their report:—"We think the improvements put upon this machine since the last State Fair are of such a character as to justify its use to this award; and the exceeding simplicity and great strength of the machine must commend it to the farming community."

At the Wisconsin State Fair, last fall, it attracted especial attention, and after a very careful inspection by the Committee, was honored with three Diplomas—as a Mower, a combined Reaper and Mower, and for the one-horse Harvester.

At the Michigan State Fair last fall, it received the 1st Premium as the Best Combined Reaper and Mower.

At the Tennessee State Fair last summer, it received the First Premium as the Best Combined Reaper and Mower.

At the last Indiana State Fair, it received the First Premium as the best Combined Reaper and Mower.

At the Indiana State Fair 1858, it received the First Premium as the best Combined Reaper and Mower.

All premiums on machines as Mowers only, or Reapers only, do not recommend to farmers what they want, viz:—

THE BEST COMBINED REAPING AND MOWING MACHINE.

The Factory Price of the Improved Harvester for 1860, will be \$135; for Mower, \$110; for Little Buffalo Harvester, \$100—Mower, \$90.

For further particulars address
L. J. BUSH, Gen'l Agent,
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